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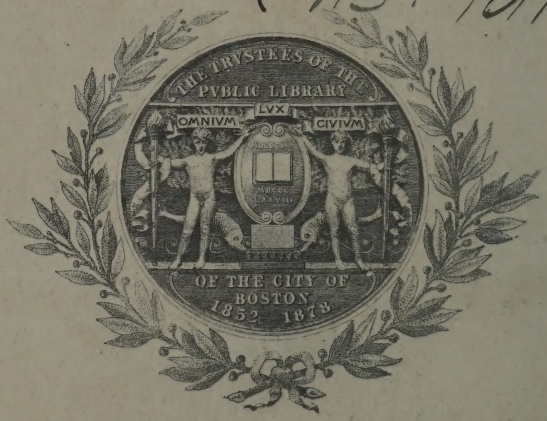

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JANUARY, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

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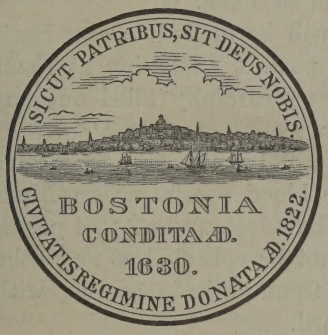

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

	Population	748,431	
Births	19,571	Birth rate	26.1
Deaths	12,020	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
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FREE WASSERMANN TESTS.

The Bacteriological Laboratory of the Boston Health Department is prepared to examine blood specimens by the Wassermann test for syphilis.

Tests are made each Tuesday, Wednesday, Thursday and Friday.

Patients for whom the test is requested should be sent to the laboratory, Room 1101, City Hall Annex, where the blood specimens will be taken.

History blanks will be mailed to any Boston physician on request, and each patient appearing at the laboratory must present one of these, carefully filled out and signed by his attending physician.

The laboratory will be prepared to receive these patients and to collect the blood specimens on Mondays, Tuesdays, Wednesdays and Thursdays, from 2 to 4 p. m., only.

Specimens will not be collected at any other time, nor will they be collected from patients coming without a carefully prepared history card.

Owing to the large number of requests, outfits for collecting blood specimens will now be furnished to physicians who call or send to the laboratory for them. The specimens must be returned to the laboratory by messenger. Culture stations are forbidden to receive them.

Physicians who desire instruction in taking these specimens may bring their patients to the laboratory at the regular hours for this work and the method will be demonstrated.

This test, like all laboratory tests furnished by the department, is without cost to physician or patient.

May 23-1919
Record

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, JANUARY, 1916. NO. 1

"Prevention is Better Than Cure and Far Cheaper."

CANCER.

Investigation and research have failed to prove that this disease, which is fast working its way into the fore front of the leading causes of death in this country, is a blood disease or that it is communicable.

We do know that it is one of the prominent diseases in civilized life and for a disease that is supposed to be a curable one exacts a tremendous toll that is rapidly and constantly increasing in almost every large city in this country.

There are diseases for which we do not know a remedy, yet by careful hygienic living the rates are steadily decreasing, but here is a disease, cancer, which if attended to in its early stages is curable and yet the death rate from which is constantly increasing. It has well been said by one of America's government surgeons that "the risk is not in surgery but in delayed surgery."

"Precancerous lesions" should at once be seen by a skilled physician since the disease always begins in some form of abnormal tissue. While these lesions do not always develop into true cancers they should be removed as soon as there is real danger of malignant disease. This is preventing cancer, and "prevention is better than cure and far cheaper."

Pigmented moles, cracks on the lips that are becoming permanent, wens, blisters, scabs, warts and similar persisting conditions should have your serious consideration. Moles that are subject to constant irritation or that begin to change in color and size and appearance should receive attention. Cer-

tain scaly spots on the skin in adult persons should be watched and blue-black pigmented moles should be removed before cancer develops. Any lump or swelling in the female breast is suspicious and any increase of bleeding at the menopause or a return of the bleeding after the same warrants immediate attention. Indigestion in people after forty years of age should not be considered lightly.

These symptoms are not difficult of diagnosis and especially after consultation with a skilled surgeon. They may develop into any of the following forms of cancer: Cancer of the breast, cancer of the womb, lip, mouth and tongue, skin, stomach and bowels, intestines and of the bile passage. From these facts we should not neglect any source of chronic irritation, and any ulcer or sore which persists beyond the natural time for repair should demand investigation.

Cancer never develops in a previously healthy tissue, but a precancerous condition always exists which favors the development of cancer and which determines its location. The rapidity of the spread of this disease and the parts of the body most likely to be affected vary very much with the different forms of cancer. The rapidity of growth in the various tumors is very important in determining the expectation of cure in each case. While this cannot be controlled the opportunity for further damage may be prevented by providing for its early removal.

When cancerous growths are starting there is no pain and most people neglect to attach any seriousness to them while in this condition. When the growths do pain and enlarge, people have recourse to medicines and "quack remedies" which have absolutely no effect in curing. While medicine might allay the pain, the consequent deterrent effect caused by the delay in not having a surgeon remove the growth is tremendous. The curative effects of radium are practically limited to-day to superficial growths of the skin, mucous membranes and certain deeper lying tumors of bones, etc., which are not very malignant. Radium has probably been shown to exert a definitely curative effect on certain of these cases while the disease is still local and in the early stages. It is believed that there is as yet no proof that radium has finally cured any case of advanced and disseminated cancer.

The public should heed the warning against dishonest and fake radium establishments, the proprietors of which have little or no radium or knowledge of its use, and although cures are promised in advertisements alluringly worded, these men are

unable to secure for their patients even those palliative effects which are possible from radium. The best results of radium therapy can be secured only when comparatively large amounts are available for use and the present limited world's supply of this metal places it out of reach of the great majority of patients.

Fake remedies and cures rob the patient of both his money and his chance of life. There is no need of people going to these establishments that hold out promises of cures. No man need lose his opportunity for proper treatment on account of the expense. All of the large cities offer in their hospitals the best abilities of the most skilled surgeons free of charge for those unable to consult a private surgeon.

Neglect and delay means an incurable condition and the longer the delay the less chance you have when finally you must seek the services of a skilled surgeon.

In conclusion let us urge you to remember that the only cure for cancer is to remove every vestige of the disease and the only sure way to do this is by a surgical operation. If operated on early, the majority of cases are curable. If let alone, all cases end in death. Records of our best hospitals prove that with an early operation the chances of cure are very high.

The Prevalence of Cancer.

Cancer is of greater frequency at ages over forty than tuberculosis, pneumonia, typhoid fever or digestive diseases.

At ages over forty one person in eleven dies of cancer.

One woman in eight and one man in fourteen over forty years of age is attacked by the disease, with fatal results.

Largely because of public ignorance and neglect cancer now proves fatal in over 90 per cent of the attacks.

Of the 75,000 annual deaths from this disease in the United States, 30,000 are from cancer of the stomach and liver, 12,000 from cancer of the uterus and other organs of generation, 7,500 from cancer of the breast, and about 25,500 from cancer of other organs and parts.

In Boston the death rate from cancer is increasing yearly, and a death rate in 1851 of 1.34 has increased to 11.40 in 1915. Cancer as a cause of death is rapidly forging to the front and from a very minor position it has risen in this city to fourth place, outranked only by heart disease, pneumonia and tuberculosis. With a continued decrease in tuberculosis, cancer will soon jump another notch in the list of leading causes of death in Boston.

Deaths from Cancer in Boston During the Year 1915.

The total number of deaths reported from cancer in 1915 was 855, classified as follows:

Cancer of stomach and liver	257
Cancer of peritoneum, intestines and rectum	149
Cancer of female genital organs	124
Cancer of breast	93
Cancer of the buccal cavity	38
Cancer of the skin	14
Cancer of other organs, or not specified	180

There were four deaths reported under five years of age. The range of ages were from under two years to ninety-five years.

PNEUMONIA.

Ten per cent of the deaths in the United States result from pneumonia. It is estimated that during the past thirty days this rate has been doubled in some sections. Tuberculosis and heart disease, each causing one-ninth of all fatalities, are the only diseases which outrank pneumonia among the legion of the men of death, but in certain cities pneumonia is steadily increasing and even has surpassed the mortality from tuberculosis. Seventy per cent of all cases occur between December and May. It is distinctly a cold weather infection, seemingly brought by wintry blasts, but especially prevalent during the winter season only because its victims are rendered more susceptible at that time by exposure, debilitating influences and the presence of predisposing infections.

Pneumonia principally affects those at the extremes of life, but no age is exempt. It is invariably a germ disease. The predisposing and exciting organisms are so numerous that it would be futile to attempt their enumeration. Many of them are constantly present in the mouths and throats of healthy persons and it is only through the aid which we unwittingly extend to them that they are transformed from harmless organisms to one of man's most powerful enemies.

The presence of other diseases is the great predisposing cause of pneumonia. They prepare the soil for invasion. Holding first rank in this category is influenza, the increased incidence of pneumonia at this time being largely due to the present epidemic of la grippe. Individuals suffering from this infection are peculiarly susceptible to respiratory complications and should properly observe every hygienic rule. Inflammation of

the upper air passages, pharyngitis, bronchitis and tonsillitis, often predispose to the development of the disease, particularly among the aged and infirm. The acute contagious diseases of childhood, more especially measles and whooping cough, frequently prepare the way for pneumonia. Anyone who through neglect or carelessness permits the spread of these infections is therefore open to the severest condemnation. Exhausting disease, of whatever nature, is often sufficient to so reduce our resistance that we are unable to cope with organisms which should be easily overcome, and hence predisposes to the infection.

Debility, either temporary or chronic, developing from any cause, increases susceptibility. Because of this the disease most often attacks those at the extremes of life. Among debilitating influences must be mentioned cold, exposure to penetrating winds, and the chilling of body surfaces as a result of wetting. The combination of lack of food and fatigue proves particularly disastrous during the winter season and is a condition to be avoided whenever possible. Bad housing, mental or physical harassment and overwork are alike the advance agents of the infection. Overcrowding in street cars, theaters, and other public places is unquestionably in part responsible for the spread of pneumonia in cities, as far greater opportunity is thus offered for the dissemination of the predisposing diseases through indiscriminate coughing and other means of droplet infection, as well as the directly injurious effects which inevitably result from exposure to such environment. The overheating of rooms is also seemingly harmful. Promiscuous expectoration may be, and probably is, a factor in infection and consequently should be avoided by every citizen. A remaining most important agent should be mentioned,—alcohol. It is in truth the handmaiden of pneumonia, and there is none more certain or more sure of success, especially if liberally and continuously used.

While the foregoing facts constitute in part our knowledge of the reasons for the widespread dissemination of an infection which carries with it a mortality of from 10 to 30 per cent, it should be remembered that our scientific data are not yet complete. There are problems connected with immunity, predisposition and the occurrence of epidemics which are yet to be solved. It is known that pneumonia frequently attacks those who are perfectly well, and who apparently have observed every hygienic rule. Whether this is due to the increased virulence of the organism or to other causes is unexplained. It is,

however, recognized that avoidance of the factors so briefly enumerated will in large part diminish individual susceptibility and therefore the incidence of the disease.

THE PRACTISING PHYSICIAN.

The practising physician occupies in the community a position of special responsibility. The sick unreservedly trust to him for the attention which may mean life or death to them. He is present when children are born, administering to both mother and child. He is aware of the toll being constantly paid to the Grim Reaper. Of the deaths of those who have lived the full span of years, of parents who can ill be spared, and of youths and maidens whose lives have just begun — of these he knows, for if not present at the hour of death it is because he is on his way to the bedside or has but recently left. The physician is the first to know when pestilence is abroad in the community, when infantile paralysis is loose and maiming children. He knows where typhoid is laying its burden of protracted illness and invalidism, where malaria is chronically poisoning both the old and young, where tuberculosis is replacing health and vigor with sickness, misery and death. He knows these things because in the community he alone is brought into contact with the sick by the very nature of his vocation.

Whenever a state has evolved beyond the primitive simplicity of the pioneer stage the people have recognized the special responsibilities pertaining to the practice of medicine and have attempted by statute to limit practice to those possessing certain qualifications. They have also imposed upon physicians duties which physicians alone can fulfill and which are necessary to the social life of the community and the common welfare. **Among these duties is that of furnishing for official record certain information regarding births and deaths occurring in their practice.** And whenever a community reaches in its development the stage where it desires to control the preventable diseases, physicians are required to report the occurrence of cases of these diseases among their patients.

For these reasons every practising physician should know the purposes of the registration of births and deaths and the notification of the occurrence of preventable diseases, and the uses made of the records. He should also know thoroughly the legal requirements of his community in regard to these matters.

— (Dr. John W. Trask, United States P. H S.)

MASSACHUSETTS LAWS RELATING TO REPORTING OF BIRTHS, DISEASES AND DEATHS.

An Act Relative to Reports and Records of Births. (Acts of 1912, Chapter 280.)

SECTION 1. Physicians and midwives shall within forty-eight hours after the birth of every child in cases of which they were in charge, mail or deliver to the clerk or the registrar of the city or town in which the birth occurred a notice stating the date and place of birth, giving the street number, if any, the number of the ward in a city and the family name. Failure to mail or deliver the said notice shall be punished by a fine not exceeding twenty-five dollars for each offense.

Physicians Shall Give Immediate Notice of Cases of Dangerous Diseases to Local Health Authorities.

SECTION 50 (as amended by 1905, 251, section 2, and by 1907, 480). If a physician knows that a person whom he is called to visit is infected with smallpox, diphtheria, scarlet fever or any other disease declared by the state board of health to be dangerous to the public health, or if one or both eyes of an infant whom or whose mother he is called to visit become inflamed, swollen and red, and show an unnatural discharge within two weeks after the birth of such infant, he shall immediately give notice thereof in writing over his own signature to the selectmen or board of health of the town; and if he refuses or neglects to give such notice, he shall forfeit not less than fifty nor more than two hundred dollars for each offence.

Physician to give Death Certificate.

SECTION 10 (as amended by 1910, 322, section 2). A physician shall forthwith, after the death of a person whom he has attended during his last illness, at the request of an undertaker or authorized person or of any member of the family of the deceased, furnish for registration a standard certificate of death, stating to the best of his knowledge and belief the name of the deceased, his supposed age, **the disease of which he died, where contracted, the duration of his last illness, when last seen alive by the physician, and the date of his death.** A physician who has attended at the birth of a child dying immediately thereafter, or a physician or midwife who has attended at the birth of a child born dead, shall forthwith furnish for registration a certificate, stating that to the best of his or her knowledge and belief such child either died immediately after birth or was born dead. Both the birth and death

of such child shall be recorded and, if it was born dead, the word "stillborn" shall be entered in both the record of birth and death. A physician or midwife who neglects or refuses to make such certificate or who makes a false statement therein shall forfeit not more than fifty dollars.

Undertakers to Make Returns, etc.

SECTION 12. Every undertaker or other person who has charge of a funeral shall forthwith obtain the physician's certificate required by section 10, enter thereon the facts relative to the deceased which are required by section 1 to be recorded, and return it to the board of health or its agent, unless it is composed of the selectmen, and in such case, to the clerk of the city or town in which the death occurred. . . .

WHOOPING COUGH (PERTUSSIS).

General Information.

Whooping cough is a very serious and infectious (catching) disease. Last year it caused more deaths than scarlet fever or typhoid fever and measles combined. It is contracted by children coming in contact with others having it. It begins as an ordinary catarrhal cold and cough, the distinctive whoop not appearing until a week or ten days later. It is spread by the matter thrown out in coughing, sneezing or blowing the nose.

How to Keep Children from Getting Whooping Cough.

Do not allow children to associate with others who have colds or coughs, or to play with strange children. Do not permit children from families where whooping cough exists to visit your home.

How to Keep from Giving Whooping Cough to Others.

Do as you would be done by. It is very difficult to recognize whooping cough until the whoop appears. When a child has a persistent cough it should be kept by itself until the cause of the cough is found. Children with whooping cough must have fresh air, but they should never leave the house without being accompanied by some person who will prevent the child from associating with other children.

Whooping cough lasts from five to six weeks and the child must not associate with other children or return to school until one week after the last whoop. Should the child acci-

dentally come in contact with other children during a coughing spell, cover its mouth and nose with a handkerchief or paper napkin, which should be burned as soon as possible. Notify your friends and neighbors that there is a case of whooping cough in your family.

Save Your Baby.

If there is a baby in the family, and another child gets whooping cough, observe every possible precaution; otherwise the baby's life may be the penalty. If precautions cannot be taken and if the baby cannot be sent away, then ask the Health Department to remove all other children with whooping cough to the hospital.

How to Care for Children Who Have Whooping Cough.

Don't waste time or money on patent medicines or other cures. Fresh air, good food, rest and sleep are the standard remedies. The child should have a separate bedroom which should be kept well aired day and night. Do not dress child too warmly. After the second week child should be kept out of doors as much as possible, subject to provisions mentioned above.

Follow Your Doctor's Instructions Carefully.

The great danger to babies from whooping cough is pneumonia. If child becomes languid, has fever, rapid breathing and constant cough, call your doctor at once. If you cannot afford to have a doctor, notify the Health Department. The nurse from the Health Department comes to help you. Let her do it.

CHANGES IN RATES IN SOME OF THE LEADING CAUSES OF DEATH IN BOSTON, 1850–1915.

Year.	Heart Disease.	Pneumonia.	Cancer.	Pulmonary Tuberculosis.	Kidney Diseases.
1850	3.80	21.19	2.12	42.82	.44
1870	7.82	13.41	4.43	39.51	4.83
1890	17.43	24.31	7.26	33.27	6.61
1910	21.14	20.42	10.28	17.26	10.52
1915	21.50	19.65	11.40	13.78	10.93

DECREASE OF TYPHOID FEVER AMONG THE MILITARY.

The Surgeon-General of the United States Navy in his report just issued states that in 1912 there were twenty-two cases of typhoid fever, with fifteen deaths, in the service. In 1914 there were thirteen cases and no deaths. He attributes this decline almost entirely to the extensive use of typhoid prophylactic. While he recognizes the fact that in most of the large cities there has been a decrease in mortality from this disease, the decline in the navy has far outpaced that ashore.

At the outset of the European war wonderful precautions had been taken for the reception of typhoid fever patients. Benefiting by past experiences and by observation of other wars where typhoid fever played such havoc among the soldiery and caused such a tremendous number of deaths, the German surgeons were prepared to combat this scourge of warring troops at the outset. These endeavors bore much fruit; typhoid fever was entirely eliminated, and all the hospital facilities that were provided for the reception and care of typhoid fever patients were advantageously used for other purposes.

In the British army in France the morbidity was fourteen times and the mortality forty-two times greater among the soldiers who had not been inoculated with typhoid prophylactic than among those who had been.

In the French army conditions are reported as satisfactory, no epidemics appearing.

MOBILE LABORATORIES WITH THE ARMY IN FRANCE.

The introduction into field operations of mobile laboratories is one of the outstanding features of the medical arrangements of the British expeditionary force. In the early stage of the war there were only one or two of them, but now there is quite a fleet. Each can do its work, if necessary, even in a neighborhood where buildings are entirely lacking. The common aim of the laboratories is to provide any additional scientific data which may from time to time be required when the general principles of preventive medicine are being applied at the real front. They therefore seek to lessen the wastage due to contagion, air-borne, food-borne or water-borne disease. The work done includes the testing of urine of every man of a whole division who was known or suspected to have previously suffered from enteric fever, with a view to the discovery and removal

of carriers; the diagnosis of cerebrospinal meningitis and the watching of contacts and supervising bacteriologically the treatment of acute cases of this disease by various specifics. Some very useful work has been done in dealing with the typhoid fever epidemic among the Flemish, in addition to all actual cases being brought under treatment, and the homes of the patients put into proper sanitary condition. Over 20,000 people applied for antityphoid inoculation and about 80 per cent of these returned for the desirable second dose. The whole business of dealing with zymotic disease has been excellent; the zymotic morbidity curve, and especially the typhoid curve, has been, so far, kept down to a satisfactory low level which, considering the number of men, is noteworthy.— *The Journal of State Medicine.*

A NATIONAL LEPROSARIUM.

The United States Public Health Service has recommended the establishment of a National Leprosarium for the proper segregation and care of cases of leprosy, and a bill to this effect was introduced in Congress last month.

This will mean that a government hospital and reservation will be provided in some part of the country for those afflicted with a disease that carries with its name the condemnation of all mankind.

Undoubtedly there are many people in the country afflicted with leprosy who wander about without care, treatment or even means to support themselves. As soon as their condition becomes known they are ostracized, driven out, or allowed to escape to other parts and they become outcasts.

With the Government providing hospital accommodations it is fair to assume that the number of known lepers will increase; that is, when a case of leprosy is found it will be placed in charge of the Government and not allowed to get away. All cases now under individual city or state control will probably be placed in one institution under the supervision and expense of the National Government.

Some years ago the Supreme Court of Massachusetts ruled that "In order to amount to a nuisance it is not necessary that the corruption of the atmosphere should be such as to be dangerous to health; it is sufficient that the effluvia are offensive to the senses, and render habitations uncomfortable."

COMPARATIVE DEATH RATES IN THE NINE LARGEST CITIES IN THE UNITED STATES FOR 1915.

	New York.	Philadelphia.*	Chicago.	St. Louis.	Boston.	Cleveland.	Baltimore.	Pittsburgh.	Detroit.
Crude death rate for 1915 per 1,000 inhabitants	13.64	.....	14.18	13.03	16.06	13.10	17.1	15.2	15.7
Rate, excluding nonresidents	13.38	.....	†	12.30	14.85	†	15.9	13.4	†
Death rate of children per 1,000 births registered	98.00	.....	†	82.07	103.00	†	120.0	107.7	104.0
" from typhoid fever	5.90	.....	5.40	6.60	5.30	8.05	21.8	10.3	13.0
" from tuberculosis	158.00	.....	146.80	116.00	137.80	122.00	187.0	101.0	117.0
" from measles	11.30	.....	9.60	5.80	5.30	11.40	3.2	12.9	9.2
" from diphtheria	22.90	.....	27.70	23.09	29.10	24.30	13.5	26.7	20.9
" from scarlet fever	5.20	.....	3.10	2.53	10.60	10.74	5.6	9.4	4.5
" from whooping cough	7.10	.....	2.30	4.18	14.80	†	3.6	7.5	15.0

* Philadelphia figures not available.

† Not given.

INCREASING NUMBER OF DEATHS FROM GAS POISONING.

Within the past few months the number of deaths from accidental gas poisoning has increased in this city and investigation proved that in most cases it was the fault of carelessness, defective fixtures, loose keys, keys too close together and on radiators where at times all tips did not light and allowed the free escape of gas.

Where prepayment meters are used there is always an element of danger. A person in another part of the house might be using the gas and fall asleep. In the meantime the supply of gas is exhausted, the light in the room goes out, and another member of the family puts a quarter in the meter. Immediately the gas flows through the pipes and escapes through any open fixtures.

The poisonous constituent of ordinary gas is carbon monoxide. There is no feeling of suffocation at first so that anyone inhaling the gas rarely tries to seek the open in time to save himself. He falls into a deep sleep, becomes unconscious, and gradually passes away on account of suffocation.

A measure which will go far towards remedying many of the existing causes of gas poisoning or suffocation is to be introduced in the Legislature at this term and reads as follows:

RESOLVE.

Providing for an Investigation by the Board of Gas and Electric Light Commissioners and the Industrial Accident Board relative to the Advisability and Feasibility of the Use of Safety Devices on Gas Meters.

Resolved, That the board of gas and electric light commissioners and the industrial accident board are hereby made a commission to investigate the causes of the increasing number of deaths by gas. The said commission shall also report on the matters of the expediency of discontinuing prepayment gas meters, and the adoption of safety devices upon such meters or other appliances that will tend to decrease the deaths attendant upon the use of prepayment gas meters. The said commission shall hold public hearings and shall report to the next general court on the second Wednesday of January, such recommendations as it may deem advisable, together with such drafts of bills as may be necessary to carry out the said recommendations. The commission may incur such necessary expenses, not exceeding twenty-five hundred dollars in amount, as may be approved by the governor and council.

The Federal quarantine against shipments of Irish potatoes from foreign countries affected with powdery scab was removed January 1. The lifting of this quarantine follows the removal of the domestic quarantine against this disease last September.

ANALYSES OF CERTIFIED MILKS.

Following are the bacteria counts and fat tests of the certified milks for December and January:

MASSACHUSETTS AGRICULTURAL COLLEGE.

	Bacteria Counts.	Fat Test.
December 8	1,100	
December 13	350	
December 21	—	3.90
December 23	400	
December 27	1,200	
January 3	100	
January 10	500	
January 17	350	
January 24	500	
January 25	—	3.70

MIDDLEBROOK FARM.

	Bacteria Counts.	Fat Test.
December 6	950	
December 13	600	
December 20	500	
December 21	—	4.25
December 27	500	
January 3	750	
January 10	1,400	
January 25	—	3.80
January 17	400	
January 24	350	

PROSPECT HILL FARM.

General.

	Bacteria Counts.	Fat Test.
December 6	1,500	
December 13	1,250	
December 20	600	
December 21	—	4.50
December 27	1,200	
January 3	20,000	
January 10	40,000	
January 13	60,000	
January 17	1,900	
January 24	1,100	
January 25	—	4.00

Four Per Cent.

	Bacteria Counts.	Fat Test.
December 6	800	
December 13	1,150	
December 20	3,100	
December 21	—	4.50
December 27	600	
January 3	20,000	
January 10	40,000	
January 13	60,000	
January 17	2,200	
January 24	1,000	
January 25	—	4.00

CHERRY HILL FARM.

General.

	Bacteria Counts.	Fat Test.
December 6	400	
December 13	1,000	
December 20	1,800	
December 21	—	4.35
December 27	1,100	
January 3	1,700	
January 10	800	
January 17	2,450	
January 24	1,200	
January 25	—	3.50

Four Per Cent.

	Bacteria Counts.	Fat Test.
December 6	1,000	
December 13	1,100	
December 20	1,000	
December 21	—	4.40
December 27	1,300	
January 3	900	
January 10	650	
January 17	1,600	
January 24	1,300	
January 25	—	4.00

HAMPSHIRE HILLS DAIRY.

	Bacteria Counts.	Fat Test.
December 6	200	
December 13	500	
December 20	1,800	
December 21	—	3.80
December 27	250	
January 3	500	
January 12	500	
January 17	400	
January 24	1,800	
Janaury 25	—	3.90

GRADING OF MILK.

The Milk Committee of the State Department of Health has held many meetings at the State House in regard to the grading of milk. At each of the meetings this department was represented.

This department is of the opinion that such a system would be illegal in that we have no statute law authorizing such grading. If this system was effected in Boston this city would be grading milk for the entire metropolitan district since most of the milk for these nearby cities and towns is at first brought to Boston before being distributed.

It is felt, however, that the State Department of Health will recommend the passage of a bill during this session of the Legislature which will call for some form of grading market milk.

SALE OF EGGS IN BOSTON.

The traffic in "rots and spots" for food purposes has been completely broken up in this city as a result of a crusade begun a short time ago which resulted in all defendants being found guilty and fined.

For selling decomposed eggs:

Benjamin Seliger, 54 Poplar street, West End, fined $200.
Israel Garmon, 376 Harrison avenue, city, fined $200.

For using rotten eggs in the preparation of foodstuffs:

Samuel Cohen, 10 Wall street, West End, fined $200.
Lewis Silverstein, 10 Wall street, West End, fined $200.
David Stahl, 73 Salem street, North End, fined $200.
Freedman, Stahl & Co., 316 Blue Hill avenue, Roxbury, fined $100.

For illegally breaking out eggs:

Philip Flashman, 282 Bremen street, East Boston, fined $50.

The food inspectors have also found in their investigations that many of the dealers have been in the habit of mixing so called "cracked" eggs with "spot" eggs and selling them as "cracks." Others have been using rotten eggs in the making of cake, etc.

This department was handicapped at the outset of this investigation by the fact that the law specifically states that "the State Department of Health shall enforce the provisions of this act."

When applications were made in court for summonses for these men they were refused in view of the wording of the law. The State Department of Health kindly assigned inspectors to swear out complaints. Other cases are pending court action.

Conferences have been held with the Egg Committee of the Fruit and Produce Exchange at which representatives of this department expressed their opinions on this egg traffic and showed what had been accomplished in stamping out this kind of business. It is felt that the Exchange is in sympathy with our efforts and will support the department in the stand it has taken.

EXHIBITION MILK VERSUS STATE STANDARDS.

An indication of the interest in the milk question is seen in the large number of specimens entered for competition in the various classes at the recent milk show held in this city. Three hundred and seventeen samples of milk and ten of cream, representing nearly every section of this state, and many breeds of cattle, also three from outside Massachusetts, were submitted

either by producers or by milk inspectors. Those sent by the latter were of milk collected from delivery wagons or from places of business. The cream was supplied by producers. The bacteriological and chemical examinations of these products were made in the two laboratories connected with this department. The average findings by the chemical laboratory are enlightening and appear below:

Milk.— Total solids, 13.34 per cent; fat, 4.30 per cent.

Cream.— Fat, 42.80 per cent.

The results for total solids and fat from the milk specimens are important in view of the fact that the standards established by law in this state require only 12.15 per cent of milk solids and 3.35 per cent of fat. Furthermore, this data refutes the contention of those who claim that the legal requirements are too high and cause injustice to producers and dealers. They should not only be content, but ought to congratulate themselves that consumers in this state are so tolerant as to permit the conduct of business upon a basis which does not compel the selling of milk of a quality which might be reasonably expected from the averages of total solids and fat found in the milk show specimens.

At the milk show held in this city January 4, 5 and 6, 1916, the Boston Health Department, through the Bureau of Milk Inspection, submitted samples from some local milk dealers who were supplying consumers with the product of their own dairies. The milkmen had no knowledge that the specimens were to be taken from their teams or entered in this competition. The items considered by the judges in deciding the standing of these samples were bacterial content, flavor and odor, visible dirt, fat, milk solids not fat, acidity and bottle and cap.

The perfect score is 100, and the totals allowed are indicated below:

ame of Dealer.	Total Score.
Walker-Gordon Laboratory Company	95.60
The Kelsey Company	92.70
Watson B. Fearing	92.05
Joshua Crane, Jr.	91.70
Mixter Farm	91.45
James D. Casey	86.20
George H. Ellis	84.85
David F. Smith	84.00
South Lincoln Dairy Company	63.90
McCurdy & Co.	55.00

Insanity is found more frequently among men than among women in this country.

SUMMARY OF VITAL STATISTICS.

There were 1,294 deaths reported in the four weeks ending January 29, against 944 in the corresponding period last year, and a death rate of 22.18 against 16.44.

Reported deaths of nonresidents numbered 167 against 125 last year. Influenza, occurring 49 times as the principal cause of death and many more times as a contributing cause, was a most important factor in causing the high mortality in January.

Of deaths from reportable diseases the principal decrease was:

Tuberculosis (all forms)	18

and the principal increases were:

Whooping cough	11
Diphtheria*	10

Other important differences were as follows:

Increases:

Pneumonia and broncho-pneumonia	162
Organic diseases of heart, endocarditis and nephritis	30
Cancer	20
Premature birth	16
Violent	13
Bronchitis	12
Puerperal diseases	8
Erysipelas	5
Other causes	82

There were 31 more deaths under 1 year, 57 more under 5 years, and 154 more over 60.

The Following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending January 29, 1916.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	944	1,294
Nonresidents	125	167
Rate	16.44	22.18
Corrected rate, nonresidents deducted	14.26	19.32
Deaths under 1 year	128	159
Deaths under 5 years	194	251
Deaths over 60 years	316	470

* Eight of these were nonresidents against two last year.

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.	Total Deaths.	Nonresidents. Cases.	Nonresidents. Deaths.
Diphtheria	229	22	40	8
Scarlet fever	283	4	51	2
Measles	239	5	4	1
Typhoid fever	8	2	6	1
Whooping cough	234	10	15	1
Tuberculosis (all forms)	193	86	3	8

CENTRAL DIVISION.

Legal notices authorized	411
Forcible removal ordered	1
Prosecutions authorized	4
Stable hearings	3
Hearing	1
Lying-in hospital certified	1
Premises ordered vacated	2
Miscellaneous orders	5
Stable permit revoked	1
Stable vacated	1

Licenses — Permits.

Milk	104
Manicure — Massage	20
Hens	375
Licenses to peddle fruit and vegetables	95
Dump	11
Licenses renewed to remove bones, grease, etc.	65
Numbers assigned	79
Vehicles inspected and approved	548
Permit revoked	1
Place assigned	1

COMMUNICABLE DISEASES.

Number of visits by medical inspectors	2,764
Antitoxin given	63
Deaths investigated	24
Cases brought to Boston for treatment	85
Number of visits by nurses	3,382
Vaccinations	16
Vaccination certificate	1
Physical examinations	47
Patients forcibly removed to hospitals	4

CHILD HYGIENE.

Prenatal visits	49
Postnatal visits	4,099
New babies visited	981

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	1,804
Tuberculosis	413

Typhoid	152
Syphilis	46
Gonorrhea	204
Other examinations *	230
Bacteriological milk examinations	588

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	413
Calves inspected	1,692
Swine inspected	9,026
Animals condemned, whole	88
Parts condemned	305
Sheep inspected	1

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	341 pounds	Onions	100 pounds
Smelts	675 pounds	Preserves	12 bottles
Beef	298 pounds	Walnuts	30 pounds
Pork	41 pounds	Candy	33 pounds
Liver	12 pounds	Eggs	371 dozen
Sausage	11 pounds	Eggplant	3 bushels
Frankforts	2 pounds	Squash	12 pounds
Mackerel	14 pounds	Grapes	30 pounds
Veal	7 pounds	Apples	2 pecks
Pigeons	41 pounds	Stores examined	800
Lobster	7 pounds	Prosecutions	7
Duck	18 pounds	Fines	$1,200
Fish	15 pounds		

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	1,230
Bacteriological examinations of milk	588
Chemical examinations of vinegar	380
Chemical examinations of butter and cheese	66
Chemical examinations (miscellaneous)	20
Chemical examinations of apples	21
Number of court cases	28
Fines	$243

SANITARY INSPECTION.

New reports	1,800
New tenement house reports	140
Legal notices recommended	411
Reinspections	4,621
Nuisances reported	3,596
Complaints investigated	756

* Examinations of rats, 105. Feces, for Typhoid, Malaria, Paratyphoids, Ophthalmia, Organisms, Diphtheria virulence, Streptococci virulence, Genito-Urinary Tuberculosis, Influenza.

MONTHLY METEOROLOGICAL SUMMARY, JANUARY.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 30.18; highest, 30.65; date, 20; lowest, 29.50; date, 5.

TEMPERATURE.

Highest, 66; date, 22; lowest, 4; date, 15; greatest daily range, 36; date, 28; least daily range, 9; date, 13.

PRECIPITATION.

Total this month, 1.23; snowfall, 4.8; greatest precipitation in 24 hours, 0.73; date, 1–2; snow on the ground at end of month, 0.0; normal for this month, 3.82; excess (+) or deficiency (—) of this month as compared with the normal, —2.59; accumulated excess (+) or deficiency (—) since January 1, —2.59.

WIND.

Prevailing direction, southwest; total movement, 8,755 miles; average hourly velocity, 11.8; maximum velocity (for five minutes), 43 miles per hour, from west on 28.

WEATHER.

Number of days clear, 9; partly cloudy, 7; cloudy, 15; on which .01 inch or more of precipitation occurred, 9.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 16; lunar, 15, 16, 19, 20, 22, 23, 25; hail, 0; sleet, 2; fog, 13, 27, 28; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

MASSACHUSETTS ASSOCIATION OF BOARDS OF HEALTH.

The annual meeting of the association was held at the Brunswick Hotel, Boylston street, Boston, Thursday, January 27, 1916.

For the year 1916 Dr. Frank A. Woods of Holyoke was elected president, Dr. Francis X. Mahoney of Boston and Dr. W. W. Walcott of Natick, vice presidents, Dr. F. H. Slack of Boston, secretary, and Dr. F. G. Curtis of Newton, treasurer.

A symposium was held on the general subject of influenza and pneumonia. The discussion was opened by Dr. M. J. Rosenau of Brookline, who spoke on the causes and modes of spreading these diseases. Discussion by Dr. Francis X. Mahoney of Boston, Mr. James C. Coffey of Worcester and Dr. Charles V. Chapin of Providence.

A meeting of the Executive Committee was held at 12.15.

Of the total deaths in Boston last year 30.2 per cent of the people dying were over sixty years of age and 24.6 per cent were under five.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

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FEBRUARY, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

FREE WASSERMANN TESTS.

The Bacteriological Laboratory of the Boston Health Department is prepared to examine blood specimens by the Wassermann test for syphilis.

Tests are made each Tuesday, Wednesday, Thursday and Friday.

Patients for whom the test is requested should be sent to the laboratory, Room 1101, City Hall Annex, where the blood specimens will be taken.

History blanks will be mailed to any Boston physician on request, and each patient appearing at the laboratory must present one of these, carefully filled out and signed by his attending physician.

The laboratory will be prepared to receive these patients and to collect the blood specimens on Mondays, Tuesdays, Wednesdays and Thursdays, from 2 to 4 p. m., only.

Specimens will not be collected at any other time, nor will they be collected from patients coming without a carefully prepared history card.

Owing to the large number of requests, outfits for collecting blood specimens will now be furnished to physicians who call or send to the laboratory for them. The specimens must be returned to the laboratory by messenger. Culture stations are forbidden to receive them.

Physicians who desire instruction in taking these specimens may bring their patients to the laboratory at the regular hours for this work and the method will be demonstrated.

This test, like all laboratory tests furnished by the department, is without cost to physician or patient.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

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"Prevention is Better Than Cure and Far Cheaper."

INVESTIGATION OF DEATHS REPORTED TO BE CAUSED BY "ACIDOSIS."

Between December 20 and December 31, 1915, there were seven deaths of children after a brief illness. Six of these were in the Brighton district and lived within a short distance of each other. Each death was in a different house. The seventh death was in another part of the city.

In the city of Cambridge at the same time another death occurred.

These deaths were reported as "Acidosis" by the attending physicians.

The six deaths in Brighton were all in young children from sixteen months to three years and eight months in age.

The history of the illness was practically the same in all,—sudden onset with vomiting, intense thirst, fever, frequent attacks of vomiting, inability to retain food or drink on the stomach; diarrhea not present, or only after a laxative.

Four cases before death showed acetone and diacetic acid in the urine.

In these cases there were no coryza, conjunctivitis, throat or respiratory symptoms; eyes were normal; no eruptive diseases were present or developed in any of the families. Infantile paralysis and cerebrospinal meningitis were carefully considered and eliminated.

The children were generally conscious until before death, when coma ensued. Convulsions took place in two instances.

In six cases in Brighton:

4 died in 2 to 3 days.
1 died in 5 days.
1 died in 8 days.

The bodies after death showed great wasting, eyes deeply sunken, lips dry and fissured, and skin of face tightly drawn.

In two cases a rash of urticarial nature was said to have been present. In other cases no skin eruption was seen. Temperature was elevated 100 to 102 degrees. In one case before death it reached 108 degrees.

At first there was a report that the deaths were caused by eating poisoned candy. This was soon found to be erroneous. Some of those who had died had not eaten any candy, others who had eaten candy were not ill. The candy came from different sources. Samples were examined for animal or vegetable poison or harmful ingredients, but were found to be free from any injurious substance. Other articles of food were considered, but there was no similarity in the diet in the various families. The milk was supplied by different producers. Some was pasteurized, and some unpasteurized. In the households both sick and well used the same food. No particular kind of meat had been eaten in any case.

It was suggested that fruit or vegetables might have been sprayed with poison. Specimens of these were examined; nothing injurious was found.

Most of the families were in very comfortable circumstances. None were distinctly poor.

The houses were of the one or two-family type, built of wood. There was an abundance of light and air. Each house was surrounded by a small lawn or yard. No sanitary defects were found.

A letter was sent (December 31) to all physicians in Brighton, requesting a list of all young children who had been under their care for the last two weeks of the month. A very general reply was received from the physicians of the district. Eighty children had been under their care; most of these had bronchitis, indigestion or constipation. Twelve were reported as influenza. None were reported as "acidosis."

After the news of the deaths was spread broadcast, and the daily papers gave prominence to these cases, a number of cases were reported from Brighton as "acidosis." No other death occurred. Every case was visited by this department, five were said to have acetone in the urine and respiratory trouble was the chief symptom in these cases.

The weather in the latter part of December was exceptionally warm, and in the city at large there were many cases of pneumonia and influenza. The influenza was of the catarrhal form, affecting the respiratory organs. It was considered that

influenza might have caused these deaths. Cultures were taken from two of the dead children and from the throats and noses of eight others in their families. Some of these had been ill but recovered, and the others had been exposed. All were negative for the influenza bacillus. No diphtheria organisms were present.

The deaths came in three distinct family groups.

In the *first* group, a boy three years old was taken ill December 18 and died December 20. A brother was ill but recovered. A cousin, a girl one year and nine months, living in next house and who had been with the first case when he was ill, was taken sick December 23 and died.

In the *second* group, a boy two years old was taken ill December 19. He recovered. His cousins visited him when he was ill.

On December 23 cousin, boy sixteen months, was taken ill. Died December 31.

On December 27 cousin, boy eighteen months, taken ill. Died December 29.

On December 23 cousin, one year nine months, taken ill. Died December 28. In this family one other child was ill, but recovered.

One autopsy.

In the *third* group, December 24, a girl three years eight months, was taken ill and died December 26.

Two other young children in this family were ill, but recovered.

One autopsy.

No connection could be found between the different groups of cases, but there was an apparent relation between the first and the subsequent cases in each group.

Autopsies were made in three cases.

Two were from Brighton.

One, a child of sixteen months, showed acute degeneration of the kidneys and fatty metamorphosis of the liver. Lungs negative for penumonia, but in some small red areas at root of pleura in section and appearing in places within the blood vessels numerous short streptococcus-like chains, and some encapsulated bacilli.

Unfortunately the bacteriology of the blood stream was valueless, owing to embalming of the body.

The other, a girl of three years and eight months. Autopsy by Medical Examiner George B. Magrath on the supposition that the condition might have been caused by poison. There were present tonsilitis, fatty metamorphosis of the liver and

kidneys, and acute vascular injection and œdema of the brain. Streptococci were present in lesion on tonsil.

Doctor Magrath also performed a private autopsy on a child with the same symptoms where poison was suspected. The post-mortem findings were the same as in the preceding case, and in addition streptococci were found in the spinal cord and in certain of the solid organs.

The third autopsy was on a child sixteen months, from another part of the city. Symptoms, vomiting and convulsions. Temperature 105. With the exception of an enlarged thymus (grams 29), examination was negative.

Metcalf reports an outbreak in 1914 of 200 cases of acidosis in Concord, N. H., with six deaths. Autopsy on one case, fatty degeneration of liver and congestion of brain. Two forms of cocci were isolated from cultures from base of brain. One was large and in pairs, colonies white. Other coccus was as large as staphylococcus, colonies translucent.

Parks, 1910, reports series of acidosis cases in Birmingham. Autopsies in nine cases were negative, except for fatty degeneration of liver.

Abt, Chicago, reports four autopsies in nine cases; all had fatty degeneration of liver.

In 1914 Dr. Oscar Richardson made complete examination of child from Newton, twenty-six months, who died from "acidosis." Death was found to be due to an infection with the pneumococcus associated with very early stage of meningitis and fatty degeneration of liver.

The term "acidosis" is a term used to express a condition rather than a disease. Acetone bodies are found in many conditions, in starvation, in eclampsia, in diabetes, in nervous disturbances due to fright and in acute infectious diseases.

In 1911 Frew examined all children admitted to Hospital for Sick Children in Ormond street, London. Out of 662 cases 61.6 per cent developed acetone. He concludes that acidosis seems to be present in a majority of sick children.

Conclusions.

From the clinical side the deaths in Brighton seem to be due to a disease that is apparently infectious with the presence of acetone bodies in the urine.

Autopsies on these cases, and results of other observers, show that fatty degeneration of the liver is the constant pathological condition. Occasionally a slight meningitis is present. Otherwise the organs are negative.

The bacteriological data is very slight. When an organism has been isolated, it has been found to belong to the streptococcus-pneumococcus group.

We may conclude that in this outbreak there was an acute infection due to some organism of streptococcus-pneumococcus type, causing a septicæmic condition in which acetone bodies were present in the urine, and fatty degeneration of liver was found at autopsy.

ANTE-NATAL SUPERVISION.

The Health Department desires to call the attention of the profession to the great importance of ante-natal supervision of their patients. During the year 1915 1,048 deaths were reported giving as the cause of death "stillborn" or "premature delivery." This loss of a thousand lives was due in many cases to accidents of pregnancy, presentation, operative delivery, prolonged labor, etc. Many also were due to malformations of development, and there were many premature deaths at the sixth and eighth months of gestation. However, investigation of many of these deaths has shown that death was due to the condition of the mothers before birth, which if recognized and properly treated, would probably result in a living child. The greater number of these cases occurred in family practice, and the one person who can best recognize the diseased condition in the mother is the family physician, who knows the family and the home, their peculiarities and histories, and is considered by the family as friend and adviser. If, as a result of prenatal examination, an abnormal condition is found, proper treatment instituted at that time will probably result in a living child.

At the present time in nearly all the obstetric clinics in this city, the Wassermann test is made as a routine procedure. A very convenient method of collecting material for the test is from the cut end of the umbilical cord at the time of delivery; otherwise the median basilic vein is usually easy to enter and sufficient quantity for tests can be readily obtained. The department is now furnishing outfits for the collection of specimens, and making tests in its bacteriological laboratory.

The Health Department respectfully urges all physicians to be at all times equipped with these outfits, and is ready if necessary to coöperate with the physicians in the diagnosis and care of these cases.

MUMPS.

Mumps is an acute infection. Children between the ages of six and fifteen are the ones usually attacked, although grown people may become affected. Boys and girls are about equally affected. It occurs especially in the cold, moist spring months. This disease is believed to be contracted by direct transmission from one person to another. A person rarely has it twice.

Mumps is seldom fatal, but sometimes it leaves unpleasant results. For this reason the sick one should be well cared for until entirely recovered. It should also be remembered that this disease may be more severe in adults than in children.

Your child must be kept in the house away from other children and must not receive any visitors until all swelling has gone. All children in the family who have not had mumps must be kept away from school for a period of three weeks after last exposure to the disease.

Children who have had mumps may attend school provided a physician certifies in writing his personal knowledge of the attack; this certificate to be presented to the principal of the school attended.

The quarantine period is usually about two weeks, and no signs are posted. Before patient is discharged from quarantine he must be given a thorough bath and change of clothing.

The rooms should be thoroughly aired by opening windows and doors, letting in sunlight. Bed linen should be boiled.

A HEALTH DEPARTMENT HANDICAP.

It has often been written that the efficiency of a municipal health department may be determined by the morbidity and mortality rates of communicable diseases within the limits of the city.

It may readily be observed that this statement is not absolute for the reason that many diseases such as pneumonia and epidemic influenza, although communicable are not reportable and consequently the department has but little if any means of combating them.

As an example of this we find that during 1915 this department worked zealously through its various activities towards the prevention and control of diseases with the ultimate hope of reducing the death rate in general.

Towards the end of the year, in November and December, this hope began to fade on account of the constant and almost daily increase in the number of deaths from pneumonia, grip

and other respiratory diseases. Confronted with these conditions the department finished with a death rate slightly lower than the previous year.

This increase continued, and we find that on February 1 there were 350 more deaths than in the same period of last year. For the first four weeks this is a tremendous increase to combat. The larger number of these extra deaths was caused by pneumonia, grip, etc., and such a heavy death rate at the beginning is a severe handicap to a department for the rest of the year.

Of course many of these deaths, particularly of old people and children, would undoubtedly have occurred some time during this year, but the figures themselves are impressive in that the average yearly increase for the past fifteen years has not approached this increase of the first four weeks of the new year. The average yearly increase during the past five years has been in the neighborhood of only one hundred.

Only through constant warning, advice and education, through the medium of leaflets and the daily newspapers is the Health Department able to do anything in the way of reaching people, especially the ignorant and the careless, to warn them of impending dangers that have so often resulted fatally.

THE OPPORTUNITY OF THE MEDICAL PROFESSION.

In a collection of letters from graduates of the Harvard Medical School, Irving Fisher, the economist, says in a personal letter to Doctor Emmons, the editor:

"The great preventable wastes in this world are, I believe, wastes which can be prevented only, or chiefly, by hygiene. Crime, vice, insanity, disease, death and poverty could be wonderfully reduced by applying hygienic knowledge, even the little already available. The economic cost from wrong habits and conditions of living is, I am convinced, on the basis of such fragments of evidence as are obtainable, so colossal that even workers in this field would be astonished if the whole picture could be revealed.

"The medical profession is, naturally, the body of men through whom this waste is to be checked. With the increased knowledge concerning hygiene and the rapidly increasing interest in it, the medical profession has an opportunity greater than ever before. Their art is being securely based today on exact science.

"In order to rise to the occasion the profession must keep abreast of recent contributions to their subject, not only in surgery and therapeutics, but also and even more in preventive medicine and in the study of the physiology of common habits — the use of alcohol, tobacco, tea, coffee; the amount, ingredients and proportion of a wholesome dietary; the outlines of a well-balanced daily régime with its due proportion of work, rest, sleep and play. He must take an interest in public hygiene, industrial hygiene, individual hygiene, dental hygiene, domestic hygiene and all other applications. He must learn to apply his art to the upbuilding of vitality instead of simply to the repairing of sick bodies. The doctor must supplant the unintelligent physical trainer. A demand for his services must be created by the widespread circulation of the principle of medical re-examination in general, similar to the dental re-examinations in particular, which are becoming customary.

"Lastly, he must acquire a sense of his own individual responsibility to live a life beyond criticism in respect to hygiene, the use of drugs, including alcohol, and the adherence to a high ethical code in that important border-land between hygiene and morality. He must have the courage of his convictions, the willingness to practise what he preaches, and the determination to lead in the fight against immorality, alcoholism, and other evils connected with his profession instead of condoning these and following current customs in order to increase his practice. In short, he must not prostitute his practice even by acquiescence in wrong customs, much less by subservience to the interests of the forces which it is his professional duty to fight."

HYGIENE OF THE DIET.

The food we put into our bodies three times a day serves the same function that the coal does which is shoveled into an engine. It furnishes the energy for all the movements of the body and its parts, and it furnishes the heat to keep the body warm.

In the winter when a great deal more heat must be formed, a sufficient diet is especially important and people would not feel so run down in the spring if they had formed proper food habits in the cold months.

One of the commonest faults of diet is the eating of too much protein food, which in excess is hard for the body to excrete and is likely to decompose in the intestines with the formation of poisonous waste products.

WORK OF THE LEGISLATURE.

Thus far this year the Massachusetts Legislature has acted on and disposed of many of the bills that have been assigned to the Committee on Public Health.

The following bills have been given "leave to withdraw":

As to the expectoration in factories and workshops.
To prevent spread of disease by telephone transmitters.
On sale of liquor by druggists.
On records and returns of deaths.
On registration of nurses.
On sale of eggs for manufacturing purposes.
On sale of unwholesome food.
For better ventilation of water-closets.
To regulate making and sale of fruit syrups.

The committee has reported favorably upon the following:

To further define "drug business."
For research for prevention of syphilis.
That local boards notify the State Board of Health in twenty four hours of dangerous disease.
On annual death reports by local boards of health.
On medical examiners.

MILK REFRIGERATION.

The following is a copy of a notice recently issued by the Health Department to licensed dealers who were purchasing milk from producers to be sold in this city:

Dear Sir:

To further improve the milk and cream supplies of this city it is essential that provision be immediately made for adequate and efficient cooling of these products at all dairies, and for the maintenance of a low temperature until they reach the consumer. It is expected by the Health Department that you will not purchase milk and cream from farms which do not store abundant supplies of ice, and use it freely in the cooling of milk and cream which is intended for consumption in Boston. This letter is to inform you concerning the emphasis to be placed upon this important and necessary feature in the future, with which you will be expected to energetically coöperate.

Take up this matter at once with all dairymen with whom you are dealing and see to it that abundant ice supplies are provided at each farm and used properly in the refrigeration of milk and cream which you purchase.

Forty-five and one-half per cent of the total deaths in Boston last year occurred in hospitals and institutions.

Cases of Pulmonary Tuberculosis, by Wards, for 1911, 1912, 1913, 1914 and 1915.

Wards.	1911.	1912.	1913.	1914.	1915.
1	87	82	85	90	99
2	157	154	144	126	115
3	78	57	47	50	53
4	60	73	76	45	45
5	67	65	59	46	62
6	213	229	215	152	165
7	195	241	196	145	128
8	215	224	227	235	153
9	219	212	220	158	177
10	100	88	122	97	114
11	52	48	79	73	69
12	135	142	143	136	157
13	127	121	123	106	96
14	114	102	89	68	72
15	87	100	83	48	77
16	78	109	94	63	95
17	122	132	130	91	107
18	139	164	125	112	133
19	107	142	135	106	93
20	160	168	141	124	153
21	108	108	84	67	74
22	84	93	99	73	79
23	61	67	73	59	102
4	109	111	131	148	125
25	73	58	67	47	63
26 *	.....	57	33	44	41
Nonresidents and unknown	175	190	175	175	136
Total	3,137	3,322	3,195	2,645	2,852

* Admitted to Boston May 1, 1912 (Hyde Park).

EGG CASES IN COURT.

For selling decomposed eggs:

Harrison Brothers Company, 208 State street and 47 Commerce street, Boston, fined $50.

Jacob Pollen, 41 Ferry street, Everett, fined $200.

For using rotten eggs in the preparation of foodstuffs:

Giusseppe Rizzio, 202 Salem street, Boston, fined $200.

DEFECTS IN CRIMINAL LAWS AS APPLIED TO CORPORATIONS.

In the matter of prosecutions of corporations, difficulties have arisen which prevent final adjustment by existing statutes. Thus when a corporation changes its legal title, or where there is a business failure, either pending the entering of a complaint in court or during the disposition of a case, the issue becomes legally dead. There is no way for the government to satisfy its claim in criminal actions, yet under such circumstances there has been provision for adjustment of civil debts. If this is feasible in the latter instance, it should be possible to prevent corporations from violating criminal laws, and afterward escaping responsibility, either in the above or similar manner. There is an objection to making officers of these companies assume this criminal burden, but if that could be legalized it would be the most satisfactory plan. It appears, however, that cases against defunct corporations might be adjusted on a practical basis by compelling these concerns, before entering business, to file a bond with some state official, the principal of which could be drawn upon within a definite period to satisfy any lawful claims which might arise from violations of the criminal laws during the time the company was in existence. Legal complications of the civil type are surely of no more importance to the community than those arising from the laws relating to crime.

ELIMINATE THE FLY.

House flies are filthy and dangerous to human life. Born in filth, reared in filth, they feed upon filth and carry filth with them, not only causing annoyance, but leaving a trail of disease and death behind them. They are known to be carriers of disease germs. Flies may give you typhoid fever, consumption, diarrhea, dysentery and other diseases. They come to your kitchens and dining rooms loaded with filth and germs from the garbage cans, from the manure pile, from the cuspidor, from decaying animal and vegetable matter, and from the sick room. They alight on your food, in your drink, on the lips of your sleeping child, or perhaps on some open wound.

Sickness and death are traced directly to the agency of the fly. It lies within your power to guard your family and yourself from this known carrier of infection. Will you not protect yourself and assist in fighting this menace to health?

What to Do to Destroy the Fly.

The fly cannot develop from the egg, which must have undisturbed filth to grow in, in less than eight days; therefore, if all filth is cleaned up or destroyed at least once a week, the eggs will not have time to develop and there will be no flies.

Keep garbage receptacles tightly covered so that flies cannot reach the garbage. See that no refuse is allowed to remain on the ground. Use chloride of lime freely in receptacles and about places where they are kept. Keep manure in tightly covered metallic barrels, or in vehicles approved by the Health Department. Use chloride of lime freely, and remove manure every forty-eight hours. Pour kerosene into drains, keep drainage systems in good order and repair all leaks at once. Keep the premises free from accumulations of rubbish of all kinds.

The place to "swat" the fly is where he breeds, not where he basks.

RAW PORK DANGEROUS.

Disease May Be Contracted by Eating the Flesh of Hogs, in any Form, not Thoroughly Cooked.

The United States Department of Agriculture says that there is always the possibility that illness may follow the eating of pork that is raw or not thoroughly cooked.

American people, as a rule, prefer cooked pork, but there are many who, perhaps unknowingly, consume pork in an uncooked condition either in the form of raw ham or uncooked sausages. In many localities considerable amounts of these products are made up and consumed at home or distributed throughout the neighborhood. Large quantities of pork products intended to be eaten raw are also prepared commercially.

Why Raw Pork Causes Illness.

The disease known as trichinosis, which may result from eating raw pork, is caused by certain roundworms called trichinæ. These are microscopic in size and infest the flesh of hogs. The prevalence of trichinæ in hogs is indicated by the fact that during nine years, 1898–1906, when the carcasses of hogs were inspected microscopically by Federal inspectors, of 8,000,000 carcasses so inspected 1.41 per cent contained living trichinæ and 1.16 per cent contained trichina-like bodies or disintegrating trichinæ. In other words, and in round

numbers, trichinæ were present in one out of seventy-one hogs, and, if the presence of dead trichinæ and trichina-like bodies is included, in one out of every thirty-nine hogs.

Unlike many other infectious diseases the severity of an attack of trichinosis depends upon the number of parasites swallowed. Large quantities of slightly infested pork must be eaten in order to produce appreciable effects. If severe illness follows the eating of a small amount of the meat, the pork must have been heavily infested.

Sources of Infection.

In about 1,200 American cases of trichinosis the most frequent sources of infection reported were raw sausage, 225 cases; raw ham, 213; raw pork (kind of product not specified), 185. The most serious outbreak of trichinosis in the United States in the number of persons affected was that of November-December, 1911, in California, in which fifty-eight cases, with one death, resulted from summer sausage made by a farmer and peddled by him in the neighborhood.

Another outbreak occurred in Wisconsin about a year ago in which twenty-one cases, resulting in three deaths, developed in five families. Early in December a hog which had been on the farm of the first family for three years was slaughtered and part of the meat made into sausage. The next day some of the sausage was fried slightly and eaten. Two of the members of this family died. There were eight cases in three other families which procured some of the sausage immediately after it was prepared and ate it raw or imperfectly cooked.

How to Avoid Trichinosis.

To avoid trichinosis no form of pork in the raw state, including dried or smoked sausages and hams, should be eaten. All pork used as food should be cooked thoroughly. If this is done the value or wholesomeness of the meat for food purposes is not impaired by the fact that the parasites were present.

According to specialists of the department, trichinæ die when subjected to a temperature of about 140 degrees Fahrenheit. All products containing pork which are prepared to be sold as cooked products in establishments operating under Federal meat inspection are required to be cooked sufficiently to insure a temperature high enough to destroy trichinæ throughout all portions of the meat. Likewise, in order to protect consumers who are careless or ignorant of the danger of raw pork, products of kinds prepared customarily to be eaten without cooking,

such as certain kinds of hams and summer sausage, must be manufactured in accordance with methods which, it has been determined, destroy the vitality of any trichinæ which may be present in the pork. It has been found by investigations in the Bureau of Animal Industry that if pork is subjected to a temperature not higher than 5 degrees Fahrenheit for twenty days the vitality of all trichinæ is destroyed. This is one method of safeguarding pork products that are to be eaten without cooking. Other methods followed in establishments operating under Federal meat inspection consist in curing and drying the products according to certain rules which the manufacturers are required to follow.

Although products that are specially prepared for eating uncooked and bear the mark of Federal inspection may be used with safety, the custom of eating raw pork is not to be encouraged. In any case it should be remembered that fresh pork or ordinary cured-pork products are not safe as food unless properly cooked. It cannot be determined with certainty by inspection whether pork is free from trichinæ, and the Federal inspection mark does not guarantee the fitness of pork for food if it is eaten raw.

A practical rule for cooking pork is to cook it until it has lost its red color throughout all portions, or, if a trace of this color is still present, at least until the fluids of the meat have become more or less jellied.

NEW YORK QUARANTINE.

It is reported from Washington that the transfer of the quarantine offices of the port of New York will take place shortly, *i. e.*, as soon as the state legislature of New York agrees to the proposed transfer.

This has been recommended often, and when the service in Boston was transferred from this department to the Federal Government it was stated that New York was contemplating such a move. This was strongly denied by people in Boston at that time, but it appears now that preliminary steps had been taken then. When this transfer takes place all American ports, with the exception of Baltimore, will be under Federal quarantine control, pending negotiations.

Dr. L. E. Cofer, United States Public Health Service, who was in charge of the negotiations which resulted in the transfer of the Boston station, has been detailed to take charge of the New York station.

ANALYSIS OF CERTIFIED MILK.

The following are the bacteria counts and chemical analyses made by the Medical Milk Commission of Boston on the certified milks for the month of February:

HAMPSHIRE HILLS DAIRY.

	Bacteria Counts.	Fat Tests.
February 7	2,850	
February 15	3,400	
February 21	1,100	
February 23	—	4.10
February 28	2,400	

CHERRY HILL FARM.

February 7	1,700	
February 15	1,250	
February 21	1,800	
February 23	—	3.95
February 28	5,300	

PROSPECT HILL FARM.

February 7	4,800	
February 15	3,900	
February 21	1,000	
February 23	—	4.30
February 28	2,400	

MIDDLEBROOK FARM.

February 7	500	
February 13	500	
February 21	5,100	
February 23	—	4.00
February 28	400	

MASSACHUSETTS AGRICULTURAL COLLEGE.

February 7	1,400	
February 15	1,800	
February 21	1,600	
February 23	—	4.05
February 28	1,659	

Certification on the 4 per cent grade which has been produced in the past by Cherry Hill Farm and by Prospect Hill Farm has been discontinued.

During the year 1915 in this city there were 2,044 deaths from children under one year of age and of this total 324 died the day they were born, and from the second day of birth to the seventh day 296 more were added, making a total of 620 deaths the first week. During the first month 890 died, more than 43½ per cent.

UNDERTAKERS AND PURCHASERS OF "CAST OFF" TEETH.

A complaint was recently made to the Health Commissioner that many dealers in false teeth, fillings of gold, silver and platinum, were securing much of their stock from undertakers in this city.

The assumption was, of course, that men licensed by the Health Commissioner to care for the dead and prepare bodies for burial were desecrating the dead by removing these articles from the body contrary to any knowledge on the part of the relatives of the deceased.

This means larceny and malpractice on the part of the undertaker and a license would be immediately forfeited if it were found that such a practice prevailed, besides which he would be subject to police prosecution.

However, an investigation was made by this department, but no evidence was found which would warrant any action on the part of the Commissioner.

Meanwhile, many advertisements continue to appear in the daily newspapers of dealers willing to purchase these things. This department will continue its investigation and take immediate action as soon as sufficient evidence is presented.

SERUMS A SUCCESS IN WAR.

Surgery's combat with wounds and disease in the European War, as observed by Colonel Hausen, surgeon-in-chief of the Swiss army:

"Gangrene and tetanus were prevalent at the beginning of the war, but these infections are much less common now," says Colonel Hausen. "Preventive vaccination for tetanus, done as soon as possible after receipt of the wound, has given excellent results. In the treatment of gangrene the antiseptics have brilliantly affirmed their superiority over sterilized surgical dressings.

"Epidemic cerebrospinal meningitis has occurred here and there from time to time, but radical general hygienic measures have easily kept the disease under control. The value of the therapeutic use of the meningitis antitoxin cannot be estimated with certainty as yet, but in the French army the results have been most happy.

"Antityphoid vaccination has been resorted to in the English, French and German armies with good results. Although the number of cases has not been greatly diminished,

it has certainly been otherwise with the mortality. Besides, it seems that this vaccination produces a much milder run of the disease and does away with serious secondary complications, but as yet there are no precise data as to the duration of the immunity conferred.

"Preventive vaccination appears to give more positive results in cholera than in typhoid. Typhus fever has caused great ravages at the eastern front, particularly in Serbia. The only means of effectually combating the affection is by the enforcement of cleanliness."—[*New York Medical Journal.*

OYSTERS.

Federal, state and city officials, besides oyster dealers themselves, are coöperating to close all suspected oyster beds, and oysters that are now shipped from northern beds in interstate commerce are safer than ever before.

This condition has been effected through a sanitary survey made of all oyster beds from Maine to Virginia. All beds from which oysters are taken are charted, and when pollution is found these beds are closed. From the maps it is easy to ascertain the area covered by these closed beds.

The authorities are constantly making tests and examinations (bacteriological) to see whether the waters in which the oysters are growing are contaminated by sewage, etc., and by float tests, that is, starting a float at a source of sewage or other pollution and tracing its course to find out if it is carried from the sewers to the neighborhood of oyster beds.

In consequence of regulations and supervision greater care is exercised in the keeping and shucking of oysters and in the condition of the packing houses. In the general handling, packing and shipping of oysters a wonderful improvement has been made.

NOTES.

One of the most important achievements of the past year in the United States Public Health Service was the discovery that pellagra was a deprivation disease resulting from a faulty diet containing an excess of carbohydrates.

Diarrheal diseases and diseases caused by lack of proper feeding and nutrition are the most common and frequent causes of infant deaths and it is these diseases that we must attack in order to decrease the death rate.

SUMMARY OF VITAL STATISTICS.

There were 1,076 deaths reported in the four weeks ending February 26, against 1,041 in the corresponding period last year, and a death rate of 18.45 against 18.13.

Reported deaths of nonresidents numbered 136 against 154 last year. Influenza occurred 12 times as the principal cause of death against 49 in the corresponding period in 1915.

Of deaths from reportable diseases the principal decrease was:

Typhoid fever	3
Whooping cough	4

and the principal increases were:

Tuberculosis (all forms)	8
Cerebrospinal meningitis	4
Diphtheria	4

Other important differences were as follows:

Decreases:	
Cancer	23
Violent	9
Increases:	
Pneumonia and broncho-pneumonia	36
Organic diseases of heart, endocarditis and nephritis	9
Premature birth	11

There were 17 more deaths under 1 year, 17 more under 5 years, and 2 less over 60.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	1,041	1,076
Nonresidents	154	136
Rate	18.13	18.45
Corrected rate, nonresidents deducted	15.45	16.11
Deaths under 1 year	157	174
Deaths under 5 years	229	246
Deaths over 60 years	340	338

CAUSES OF DEATH.

Cerebrospinal meningitis	3	7
Diphtheria	19	23
Measles	3	7
Scarlet fever	8	7
Pulmonary tuberculosis	91	99
Other forms of tuberculosis	17	17
Typhoid fever	3	0
Whooping cough	9	5

	1915.	1916.
Accidental and violent	66	57
Bright's disease and nephritis and heart disease	227	236
Bronchitis	15	19
Cancer	77	54
Diarrhea and enteritis	24	19
Erysipelas	4	8
Pneumonia	143	179
Premature birth	26	37
Puerperal diseases	14	8
Other causes	292	294

The following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending February 26, 1916:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.	Total Deaths.	Nonresidents. Cases.	Nonresidents. Deaths.
Diphtheria	238	23	24	6
Scarlet fever	227	7	43	4
Measles	388	7	1	0
Typhoid fever	12	0	0	0
Whooping cough	160	5	2	0
Tuberculosis (all forms)	235	113	17	11

CENTRAL DIVISION.

Legal notices authorized	370
Forcible removals ordered	9
Prosecutions authorized	3
Stable hearing	1
Hearing	1
Lying-in hospitals certified	5
Premises ordered vacated	3
Miscellaneous orders	1
Stable permit revoked	1
Stables vacated	4

Licenses — Permits.

Milk	115
Manicure — Massage	11
Hens	90
Licenses to peddle fruit and vegetables	232
Dump	10
Licenses renewed to remove bones, grease, etc.	69
Numbers assigned	214
Vehicles inspected and approved	78
Permit revoked	0
Places assigned	4
Stable permits granted	4
Stable permits refused	2

COMMUNICABLE DISEASES.

Number of visits by medical inspectors	2,263
Antitoxin given	68
Deaths investigated	20
Cases brought to Boston for treatment	88
Vaccinations	19
Vaccination certificates	6
Physical examinations	30
Patients forcibly removed to hospitals	9

Public Health Nursing.

Communicable disease visits	2,693
Prenatal visits	31
Postnatal visits	3,924
New babies visited	1,045
Total visits by nurses	7,693

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	1,847
Tuberculosis	338
Typhoid	103
Syphilis	93
Gonorrhea	207
Other examinations	140
Bacteriological milk examinations	428

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	315
Calves inspected	2,480
Swine inspected	7,411
Animals condemned, whole	97
Parts condemned	223
Sheep inspected	0

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	55 pounds	Tomatoes	30 pounds
Beef	3 pounds	Cabbages	50 pounds
Pork	52 pounds	Walnuts	30 pounds
Lamb	5 pounds	Eggs	371 dozen
Frankforts	2 pounds	Eggplant	3 bushels
Veal (immatured)	357 pounds	Stores examined	777
Veal (tainted)	38 pounds	Prosecutions	9
Veal (unstamped)	38 pounds	Fines	$400

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:

Chemical examinations of milk	1,074
Bacteriological examinations of milk	428
Chemical examinations of vinegar	94

Chemical examinations of butter and cheese	75
Chemical examinations (miscellaneous)	26
Chemical examinations of eggs	43
Number of court cases	32
Fines	$425

SANITARY INSPECTION.

New reports	2,392
New tenement house reports	298
Legal notices recommended	370
Reinspections	4,119
Nuisances reported	3,275
Complaints investigated	973

MONTHLY METEOROLOGICAL SUMMARY, FEBRUARY.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 39.97; highest, 30.37; date, 14; lowest, 28.86; date, 26.

TEMPERATURE.

Highest, 57; date, 1; lowest, 0; date, 21; greatest daily range, 31; date, 22; least daily range, 6; date, 18.

PRECIPITATION.

Total this month, 5.18; snowfall, 30.3; greatest precipitation in 24 hours, 2.02; date, 25–26; snow on the ground at end of month, 0.5; normal for this month, 3.56; excess (+) or deficiency (—) of this month as compared with the normal, +1.62; accumulated excess (+) or deficiency (—) since January 1, —0.97.

WIND.

Prevailing direction, west; total movement, 8,548 miles; average hourly velocity, 12.3; maximum velocity (for five minutes), 36 miles per hour, from west on 19.

WEATHER.

Number of days clear, 9; partly cloudy, 8; cloudy, 12; on which .01 inch or more of precipitation occurred, 13.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, **; lunar, 0; hail, 0; sleet, 23; fog, 18, 23, 25, 26; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

The Supreme Court of Wisconsin has decided that a marriage should be annulled because one party was infected with gonorrhea at the time of marriage.

There was not one child in the City of Boston last year that had become blind from ophthalmia neonatorum.

** 5, 11, 15, 16, 20, 22, 29.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

13-59

MARCH, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

B.P.L.

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

FREE WASSERMANN TESTS.

The Bacteriological Laboratory of the Boston Health Department is prepared to examine blood specimens by the Wassermann test for syphilis.

Tests are made each Tuesday, Wednesday, Thursday and Friday.

Patients for whom the test is requested should be sent to the laboratory, Room 1101, City Hall Annex, where the blood specimens will be taken.

History blanks will be mailed to any Boston physician on request, and each patient appearing at the laboratory must present one of these, carefully filled out and signed by his attending physician.

The laboratory will be prepared to receive these patients and to collect the blood specimens on Mondays, Tuesdays, Wednesdays and Thursdays, from 2 to 4 p. m., only.

Specimens will not be collected at any other time, nor will they be collected from patients coming without a carefully prepared history card.

Owing to the large number of requests, outfits for collecting blood specimens will now be furnished to physicians who call or send to the laboratory for them. The specimens must be returned to the laboratory by messenger. Culture stations are forbidden to receive them.

Physicians who desire instruction in taking these specimens may bring their patients to the laboratory at the regular hours for this work and the method will be demonstrated.

This test, like all laboratory tests furnished by the department, is without cost to physician or patient.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, MARCH, 1916. NO. 3

"It is within the power of man to cause all parasitic (germ) diseases to disappear from the world."

THE NEW HEALTH UNIT.

At a conference held in November, 1915, at which were present leading members of the most prominent medical agencies, nursing organizations, and other associations interested in the betterment of the people, it was unanimously voted to accept the invitation of the Health Commissioner of the City of Boston to become a part of the Health Unit.

This is a brief history of the Health Unit opened at 17 Blossom street, West End, on February 1, 1916.

The intent and purpose of the Unit was not only to improve the health work in the district but to bring together under one roof and under a coöperative working arrangement the many health and relief associations which have been working in this section for a long time but without the beneficial results which come from daily contact with each other as well as centralization.

The following letter was sent to each physician in the district explaining the purposes of the Unit and the list of organizations that accepted the invitation.

OFFICE OF THE HEALTH COMMISSIONER,
BOSTON, March 7, 1916.

DEAR DOCTOR:

Permit me to call your attention to the opening by the Health Department of the City of Boston of Health Unit No. 1 at 17 Blossom street, West End.

Its intent and purpose is to centralize and coördinate the many health activities found in this section of the city. You can readily appreciate the beneficial results to be obtained by bringing the various health organizations and charitable institutions that have been working in the West End

of the city under one roof in order that they may coöperate with each other. This will do away with a great deal of duplication of effort and make it possible for these organizations, because of their daily contact with each other, to improve upon the splendid work already done.

Feeling that you might desire to take advantage of some of the benefits that are offered, and a desire to have your earnest coöperation, prompts me to enumerate the organizations that are to be found in the Unit, and which are at your service.

I. Health Department, City of Boston, performing the following duties.
   - A. Physicians and nurses taking charge of communicable diseases; pre-natal and post-natal work.
   - B. Vaccinations; examination of foodhandlers; Wasserman tests; examination of milk.
   - C. Sanitary inspectors.
   - D. Food inspectors.

   In addition to the above, the handling of all problems within the jurisdiction of the Health Department.

II. Instructive District Nursing Association.
   - A. Furnishing maternity nursing.
   - B. Bedside nursing.

   (Should you desire a nurse on one of your cases, telephone the Unit — Haymarket 2992.)

III. Boston Dispensary District Physician.
   - A. Furnishing free services to the poor people in the neighborhood who are absolutely unable to employ a physician.

IV. Consumptives' Hospital Department.

   Nurses in charge of the consumptive cases in this section of the city.

V. Milk and Baby Hygiene Association.

VI. Associated Charities.

   You may refer to them any case with which you come in contact needing financial assistance.

VII. Hebrew Federated Charities.

   This association has a worker in the Unit who will investigate and render assistance to any case of Jewish extraction.

In addition to the services of any of the representatives of the above organizations, we should be very pleased to coöperate with you in the solution of any other health problem with which you may be confronted.

Trusting that we may be of service to you, I am,

Very truly yours,

F. X. Mahoney, M. D.,
Commissioner.

In response to this letter an advisory committee was organized, composed of leading practitioners in the West End, to work in conjunction with the medical inspector in charge, and no one is more enthusiastic than the West End doctor about the possibilities of the Health Center.

The most important work planned was a constant campaign of education for the people of the neighborhood, along the

lines of preventive medicine, which must necessarily include personal hygiene, sanitation, the housing problem, and every other suggestion which would reduce morbidity.

In accordance with this plan there was held on March 26 to 28 last a health exhibit and series of lectures and the response was tremendous. Over 3,500 people attended the lectures and the different speakers pronounced the audiences they addressed the most enthusiastic they have ever faced.

The clergy, laymen, women and children, in short, everyone in the district is enthusiastic about the new factor in the neighborhood, and people are responding to the suggestions and advice given by the different agencies housed in the Unit conscious of the fact that it is given for their good, and backed up by the moral effect of unity and coöperation.

The following is a report of the work done at the Unit during the month of March:

Report of the Health Unit for the Month of March, 1916.

Health Department:	
Visits by Medical Inspectors:	
Contagious	150
Tuberculosis	36
Ophthalmia	27
Miscellaneous	14
Total	227
Cases Visited by Nurses:	
Medical	274
Babies	685
Total	959
Defective Sanitary Conditions found in tenement houses	100
District Physician's Calls:	
Calls made	144
Instructive District Nursing Association:	
Visits made by Nurses	806
Associated and Hebrew Federated Charities:	
Cases investigated and assisted	34

Medicines for the baby should be used only when prescribed by a physician. Patent medicines often do much harm.

TESTING THE VIRULENCE OF DIPHTHERIA BACILLI.

The diagnosis of diphtheria in the laboratory is made by microscopic examination of smears from swabs or cultures. The preparations are made by mixing some of the culture growth with a drop of water on a glass slide, spreading the mixture in a thin even smear, drying and staining (usually with Loeffler's methylene-blue). The diphtheria bacilli appear in rod like forms, irregular in shape and having bright staining spots or "granules" as they are called. The typical forms are very characteristic and readily recognized by an expert.

Persons having diphtheria are kept in quarantine until these characteristic organisms can no longer be found in their cultures. Before a case can be freed in the regular routine manner it is required that two successive negative cultures at least twenty-four hours apart and taken from both nose and throat of the patient must be obtained, and the second culture is to be taken by a representative of the Health Department.

It frequently happens that a person recovers from the sickness of diphtheria but still has "positive" cultures, that is, although his system has overcome the diphtheria poisons it has not become freed from the organisms which produce these poisons and which are still present in the secretions of either or both nose and throat. It can readily be seen how dangerous it would be to release such a person from quarantine since he might infect many susceptible persons with whom he might come in contact.

It has been found, however, that diphtheria bacilli vary in virulence and that of two cultures which appear identical under the microscope one may be exceedingly dangerous and the other harmless.

An attendant or nurse of a diphtheria case may be a carrier of the bacilli and not be ill at all either because the bacilli are nonvirulent or because the "carrier" is not susceptible.

Usually it is found that a person who is ill with diphtheria has virulent bacilli, and that they remain virulent until he is free from them whether that takes a week or a year.

The question of virulence is one of much importance since if the organisms are not virulent there is no necessity for confining a well person in quarantine.

The only method by which the virulence can be determined is by animal inoculation.

The bacilli are first obtained in pure culture by "streaking

out" a little of the growth on various tubes of solidified blood serum, carrying over by means of a platinum loop fewer organisms to each successive tube until the surfaces of the last few tubes are seeded with individual and fairly separated organisms. These tubes are then incubated and the organisms feeding on the surrounding media develop into little specks or colonies which are visible to the naked eye. Each of these colonies is a pure culture which has developed through the multiplication of the original organism.

Individual colonies are now "fished" with a sterile platinum needle and planted on fresh media, enough of the bacteria remaining on the needle after the planting to allow for their identification by rubbing up on a glass slide with a drop of water, drying and staining.

The pure cultures after another period of incubation for twenty-four hours for growth are now transferred to sterile bouillon and grown at the body temperature for forty-eight hours.

The diphtheria poison is soluble and at the end of forty-eight hours whatever poisons have developed are free in the liquid.

Guinea pigs, weighing eight to twelve ounces, are best suited for the test, and each receives a subcutaneous inoculation of the bouillon culture equal in amount to half of 1 per cent of its body weight.

A positive reaction causes death in the animals inoculated, usually within two days, while the inoculation of a nonvirulent culture has no effect upon them.

The Health Department makes this test on request either for persons who after recovery from diphtheria have been kept in quarantine for several weeks because of positive cultures, or, for the so-called "bacteriological cases," persons who, though they have shown no illness, are carriers of typical diphtheria-like bacilli.

If the virulence test proves positive the person must remain in quarantine until he has become free from the bacilli, if negative he may be allowed to go at large.

Since the test requires several days to perform, it is advisable to continue to submit cultures for release because negatives may be obtained and the case released in the ordinary way before the result of a virulence test is ready to be reported.

The baby should be weighed weekly and a record kept to determine if the baby is gaining in weight normally.

SAVE THE BABIES.

The week of March 4 to 11 was declared as National Baby Week, and a great campaign, nation-wide, was made for the protection and care of our future citizens. The City of Boston, through its public and private organizations that are interested in health activities, made extensive preparations for the education of the public, and especially the mothers.

Meetings were arranged and exhibits prepared that dealt entirely with the care of the baby.

During the past year, 1915, 2,044 babies under one year died in Boston. One hundred and four babies of every thousand born died during the year. One thousand of these deaths were preventable and they were due mostly to lack of knowledge on the part of the mothers. The education of the mother is always followed by marked decrease in infant mortality.

The City of Boston enjoys a well deserved reputation for the solicitude it has always manifested in the care and protection of its babies. Public parks, playgrounds and beaches have been provided for the care of her children.

The great object of this campaign was to reach the mothers and expectant mothers, and to educate them in the proper care of the baby. If this can be accomplished, thousands of babies will be saved in this city during the coming year and in the years to follow.

With this end always in view the Health Department of this city inaugurated during the month its first Health Unit. Heretofore it has been the experience of many of the large cities that in spite of much health work the effort has failed to reach many of those who need service.

In a congested area where the population is cosmopolitan, and where there is a diversity of languages, the people are in a great measure ignorant of the numberless opportunities that lie about them.

The residents of this district have been apprised of the aims of the Unit and of the willingness of the people engaged to help them. Here is a place to turn to, convenient and cheerful, with a physician in charge who can speak all of the languages of the people in the district and with a corps of assistants representing all of the associations in this city working for the welfare of the people in the prevention and control of disease.

It is hoped that here with practice supplanting theory the greatest good for the greatest number of these people will be accomplished.

THE ANTI-VACCINATION AGITATION.

As stated in a previous issue of the Bulletin it was expected that some attempt would be made at this session of the Legislature to exempt people from vaccination or legislating against it entirely.

The bill filed provided that a parent or guardian opposed to vaccination should not be required to submit the child to vaccination as a condition precedent to admission to the public schools, and the child could attend school except at the time of an outbreak of smallpox when the school authorities could exclude it.

There were many supporters of the bill and much argument was used at the committee hearings in its favor. Despite the fact that enough evidence was given the committee to warrant unfavorable action it was reported to the House. It passed its first reading and also the second. During the interval between the second and third readings the Press of the city wrote editorially against such a measure and much comment was made because the bill was allowed to pass a second reading.

However, the damage was undone, for the bill when it came up for a third reading was defeated, and much satisfaction was manifested by the medical profession of the community. The Boston *Transcript* summed up the situation when it wrote a day or two after the passage of the bill, at its first stage, the following laudable editorial:

THE MISCHIEVOUS ANTI-VACCINATION BILL.

A mischievous and highly dangerous bill was passed yesterday by the lower house of the Legislature, which the Senate should lose no time in killing. It was the bill to permit unvaccinated children to attend the public schools. The bill provides that when a parent or guardian is "opposed to vaccination," a child "shall not, as a condition precedent to admission to the public schools, be required to submit to vaccination, and shall be allowed to attend the public schools, except at the time of a threatened or actual outbreak of smallpox, when the School Board shall temporarily debar such child or person from the public schools." This foolish permission is logically equivalent to a law which should provide that stable doors were not to be locked, except at a time when thieves had given full public notice that they were about to steal horses. The bill amounts to an abolition of the vaccination requirement altogether, and would, if it became law, open the way to entire laxity regarding this necessary precaution. By permitting parents to determine whether or not their children shall be vaccinated it takes the power over the subject out of the hands of the State and its sanitary representatives.

If vaccination is less obviously required at the present time than it was fifty years ago, when epidemics were common, it is because vaccination in the past, re-enforced by the improved sanitary conditions, has greatly reduced the liability to the disease. It is urged by some of the opponents of

the vaccination of children that at this epoch of the world smallpox has become almost wholly a disease of adults. That is true; but why is it true? It is because the universal practice of vaccinating children has rendered them practically immune. The disease is as virulent as ever among unvaccinated children. To abolish the school requirement, and put the matter wholly in the hands of parents, would be to remove this immunity, and open the doors to a renewal of epidemics wherever the conditions are favorable to them.

Every immunity is now provided under the present law for children to whom vaccination may be a danger, and every security exists for the provision of pure vaccine. No impure or dangerous vaccine is used in public vaccination. There is absolutely no occasion in the world for the passage of this bill.

BABY CONTEST.

In the words of John Burns, "Give me intelligent motherhood and good pre-natal conditions, and I have no doubt of the future of this or any other nation."

Baby week is over, but the baby is to be kept in the limelight for some time to come.

The Boston *American* should be congratulated upon its attempt to center public attention upon the baby,— the pride of the home and the hope of the country.

This contest is open to all babies in Greater Boston between the ages of six months and two years. For the baby judged the most perfect a silver cup will be awarded, for the next ten, gold medals, the following fifteen are to receive silver medals, while to twenty-five following will be awarded bronze medals. A special prize will be given to each baby who enters the contest and whose history shows that effort has been taken by the mother with resultant good. This prize will be a certificate of honor.

The Boston *American* furnishes a history blank upon which facts concerning the baby must be written. This, with a photograph of the baby is then sent to the *American*. Competent judges have been picked.

This contest is sure to arouse the people, so that they will talk baby, study baby, and learn how to bring up the baby in the best possible way. The age period, six months to two years, is the most interesting period of child life. The dangers to the child grow less as the child grows older, as shown by the constantly diminishing death rate.

The rate in Boston for babies six to nine months old is 13 per 1,000 births; for babies nine to twelve months old, 12 per 1,000 births; while the average corresponding rate for a three-months' period in the second year of life is only six.

During the first year the baby should have mother's breast milk, but at the end of its first year its stomach is strong enough to venture upon other food.

Then comes the question of how to best care for the baby, how much sleep and when, how much play with older children, how much fresh air and when, how many clothes and of what material, etc.

All of these problems will be much discussed and much thought about during the next few months.

CANCER IN BOSTON IN 1915.

In the standard classification of deaths, cancer is divided into seven different classes. In Boston, during 1915, the number of deaths from cancer, according to this classification, was as follows:

	Male.	Female.	Total.
Cancer of the buccal cavity	33	5	38
Cancer of the stomach and liver	124	133	257
Cancer of the peritoneum, intestines, rectum	63	86	149
Cancer of the female genital organs	—	124	124
Cancer of the breast	1	92	93
Cancer of the skin	10	4	14
Cancer of other organs	118	62	180
Totals	349	506	855

CASE OF LEPROSY IN BOSTON.

The first case of leprosy this year was discovered in a man forty years of age, a resident of one of the smaller cities in Massachusetts, who came to Boston for hospital treatment. He is a native of Turkey, sailing to this country from France about two and one half years ago, and landing in Providence. He is a widower with three children who are living in Turkey. His occupation is that of a tanner.

He has been sent to Penikese.

Since 1900 twenty-one cases of leprosy have been reported in this city, and up to a few years ago they were sent to Gallop's Island. The Commonwealth now quarantines at Penikese Island all lepers found in the state.

National Leprosarium.

This brings to mind the bill recently submitted to the National Congress for the establishment of a National Leprosarium, and which carries with it an appropriation of $250,000. This bill is making progress, having passed the lower branch, and

is now before the Senate Committee on Public Health. It is hoped that the Senate will act as did the House and pass this measure, thus sending it to the President for his signature.

During the discussion of this bill it was estimated that from 500 to 1,000 lepers were at large in this country, the larger cities harboring most of them, who cannot help themselves and are a constant menace to the community.

New York has under supervision twenty-four lepers who are allowed to remain at home subject, of course, to regulations of the Health Department, and any action that Board may see fit to take.

It seems only fair that all victims who need care should have a hospital to go to, and that the few states, of which Massachusetts is one, that have at present leper hospitals should be relieved of a responsibility that appears to be more national than local.

At the present time there are at Penikese Island twelve victims of this disease, and the cost of maintaining this institution is in the neighborhood of $30,000 annually, and most of the patients are not residents of the state, yet Massachusetts is obliged to bear the burden.

ANTERIOR POLIOMYELITIS.

(Infantile Paralysis.)

Acute poliomyelitis, or infantile paralysis, is an infectious and communicable disease. While poliomyelitis is admittedly not as acutely contagious as scarlet fever or measles, its serious nature amply justifies energetic and thorough measures of control.

The disease is eminently one of childhood, but adults are also frequently affected, no age being immune.

Children in the family must not be allowed to attend school until they have received a certificate from the Health Department.

The room used by the patient should be as nearly free from furniture as possible. Carpets and hangings should be removed before the patient is placed in the room. Toys and books used by the sick person should be thoroughly disinfected or destroyed after recovery or death. The sick room should be well aired several times daily.

When practicable, one attendant should take entire care of patient, and no one else beside the physician should be allowed to enter the room. The attendant should have no communi-

cation with the rest of the family. Visitors must not be admitted to the apartment as long as the case is quarantined. The room occupied by the patient should be screened. Cats, dogs and other animals should be excluded.

Discharges from the nose and mouth of the patient should be received on a handkerchief or cloths which should at once be burned or immersed in a 2 per cent solution of carbolic acid. This solution prepared by dissolving three ounces of pure carbolic acid in one gallon of hot water.

All cloths, bed linen and personal clothing which have come in contact in any way with the sick person, should immediately be immersed in the carbolic solution before removal from the room. They should be soaked for two or three hours and may then be removed from the room and boiled in water or soap-suds for one quarter of an hour.

Surfaces of any kind soiled with the discharges should be immediately washed with the carbolic solution.

Chapter 371, Acts of 1906, . . . A child who is a member of a household in which a person is ill with smallpox, diphtheria, scarlet fever, measles, or any other infectious or contagious disease, or of a household exposed to such contagion from another household as aforesaid, shall not attend any public school during such illness until the teacher of the school has been furnished with a certificate from the Board of Health of the city or town, or from the attending physician of such person, stating that danger of conveying such disease by such child has passed.

NOTICE BY PHYSICIANS IN CASES OF DANGEROUS DISEASES.

Physicians shall give Immediate Notice in Cases of Dangerous Diseases to Local Health Authorities.

"Section 50 (amended by 1905, 251, No. 2 and by 1907, 480). If a physician knows that a person whom he is called to visit is infected with smallpox, diphtheria, scarlet fever or any other disease, declared by the State Board of Health to be dangerous to the public health, or if one or both eyes of an infant whom or whose mother he is called to visit becomes inflamed, swollen and red, and show an unnatural discharge within two weeks after birth of such infant, he shall immediately give notice thereof in writing over his own signature to the selectmen or board of health of the town, and if he refuses or neglects to give such notice, **he shall forfeit not less than fifty nor more than two hundred dollars for each offence.**"

The following diseases were declared by the State Depart-

ment of Health to be dangerous to the public health and so reportable by law. Householders and physicians must now give immediate notice to the local board of health of all cases of:

Actinomycosis, anterior poliomyelitis, anthrax, asiatic cholera, chicken-pox, diphtheria, dog bite (requiring anti-rabic treatment). Dysentery: *a.* Amebic; *b.* Bacillary. Epidemic cerebrospinal meningitis, German measles, glanders, hookworm disease. Infectious diseases of the eye: *a.* Ophthalmia neonatorum; *b.* Suppurative conjunctivitis; *c.* Trachoma. Leprosy, malaria, measles, mumps, pellagra, plague, rabies, scarlet fever, septic sore throat, smallpox, tetanus, trichinosis, tuberculosis (all forms), typhoid fever, typhus fever, whooping cough, yellow fever.

Warning.

Physicians are hereby notified that it is the purpose of this department to see that the above law for reporting all diseases that have been declared dangerous to the public health shall be complied with.

The people of this city depend upon the Health Department to warn them and their families of a sickness that is liable to be a source of infection to them. It is impossible for the Health Department to furnish such protection without having definite knowledge of the cases and their location. The physicians of this city, and by far the great majority, comply with the law, but there is a small minority who, through either carelessness or ignorance, neglect to fulfill their obligations which they have assumed as physicians.

Within the past few weeks several cases of whooping cough have been reported where the infection has been due to unreported cases, and under the care of physicians. A physician is called and obtains a history of another physician in attendance, and he assumes that the case has been reported according to law. Such assumption on his part leaves him in attendance on an unreported case, and he becomes a violator of the law.

The department would regret very much to summon a physician to court for failure to comply with this necessary law, but, in justice to physicians who comply with the law, and the duty this department owes the public, such action must be taken hereafter on all physicians who fail to report as the law directs.

During the year 1914 the South Department of the Boston City Hospital treated 2,690 cases of communicable diseases. This is an increase of 287 over the previous year.

"CLEAN-UP" CAMPAIGN.

From May 1 to May 13 will be clean-up period in Boston. While it would be far better if every day were clean-up day much will be accomplished in the efforts of the different associations, organizations and city departments in their coöperative spirit to get rid of the rubbish that has accumulated in some places for a year.

Different days are set apart for the activities of the two weeks and it is hoped that there will be much cleaning and renovating during this time. The health of the people will be benefited, much of the fire risk will be removed, open areas will cease to be eyesores, plots will be planted and homes in general will seem brighter and better when this "clean-up" campaign is over.

The program for Boston this year summarized is to be as follows:

Monday, May 1.— Fire Prevention Day, when all rubbish that serves as a fire menace will be done away with.
Tuesday, May 2.— House cleaning.
Wednesday, May 3.— House cleaning.
Thursday, May 4.— Cleaning cellars and back yards.
Friday, May 5.— Railroads and front yards.
Saturday, May 6.— Children's Day.
Monday, May 8.— Paint Day.
Tuesday, May 9.— Kill Rats Day.
Wednesday, May 10.— Day for killing flies and dandelions.
Thursday, May 11, Friday, May 12, and Saturday, May 13.— Garden days.

The three last days will be devoted to planting flowers and vegetables in yards and vacant lots.

The New England program, May 1 to 6, follows:

Monday, May 1.— Fire Prevention Day.
Tuesday, May 2, Wednesday, May 3.— House cleaning days.
Thursday, May 4.— Paint Day.
Friday, May 5.— Front and Back Yard Days.
Saturday, May 6.— Children's Day.

The executive committee in Boston is headed by Mrs. Percy G. Bolster, chairman; Miss Annette L. Crocker, secretary; Edward F. Murphy, Commissioner of Public Works; O. E. Loomis, Boy Scouts of Boston; Dr. Francis X. Mahoney, Health Commissioner; Thomas Jordan, Deputy Commissioner, Health Department; John J. Walsh, City Planning Board; John A. O'Keefe, State Fire Prevention Commissioner; John Grady, City Fire Commissioner, and Henry Abrahams, Central Labor Union.

EPIDEMIC CEREBROSPINAL MENINGITIS.

The Health Department issues the following circular of recommendations, with the hope that those who are not familiar with the proper means to be used in cases of cerebrospinal meningitis to prevent the spread of the disease may be benefited thereby.

Cerebrospinal meningitis is an acute, infectious, communicable disease. The organism is frequently present in the discharges from the mouths, noses, eyes and ears of patients suffering from the disease, and is thus transmitted from person to person.

Cerebrospinal meningitis occurs at all ages, but most frequently in children between the ages of one and ten years and is very fatal. The organism is frequently, and probably as a rule, transmitted from the sick to the well by means of the discharges from the nose and throat; it has also been found in the discharge from the eyes and ears. It is occasionally present in the noses and throats of healthy persons, who have come in close contact with the sick or used towels or handkerchiefs soiled by them. Such persons, while not contracting the disease themselves, may transmit it to others.

Patients should be strictly quarantined until released by a physician of the Health Department. Those nursing or coming in close contact with the sick should take great care to disinfect their hands and persons. They should avoid close association with healthy persons, especially children. All discharges from the nose and mouth of the sick should be most carefully disinfected, and all bed linen, towels, handkerchiefs, clothing, etc., should be boiled or soaked in a disinfecting solution. The dishes, forks, spoons, etc., of the patient should be reserved for his sole use. Rubber sheeting should be used over pillows to prevent their saturation with the discharges.

DO YOU KNOW THAT

Sags in roof-gutters may act as mosquito breeding places?

America's most valuable crop is babies?

The public cigar-cutter is a health menace?

The United States Public Health Service maintains a loan library of stereopticon slides?

The typhoid rate measures accurately community intelligence?

Whooping cough annually kills over ten thousand Americans?

Bad housing produces bad health?

EXAMINATIONS OF MILK.

The following is a report of the bacteria counts and fat tests of certified milk for the month of March, 1916, made by the Medical Milk Commission of Boston:

	Bacteria Counts.	Fat Tests.
MIDDLEBROOK FARM.		
March 6	150	
March 13	450	
March 20	1,000	
March 21	—	4.40
March 27	450	
CHERRY HILL.		
March 6	2,500	
March 13	4,700	
March 20	1,300	
March 21	—	4.30
March 27	14,400	
PROSPECT HILL.		
March 6	9,100	
March 13	1,800	
March 20	1,600	
March 21	—	4.00
March 27	4,200	
MASSACHUSETTS AGRICULTURAL COLLEGE		
March 6	1,100	
March 13	900	
March 20	750	
March 21	—	3.90
HAMPSHIRE HILLS DAIRY.		
March 6	1,600	
March 13	800	
March 20	1,600	
March 21	—	4.00
March 27	400	

EGG STORAGE.

About 50 per cent of the egg crop of the whole year is produced during the months of March, April, May and June. Eggs laid at this time are of the best quality and most desirable for cold storage. Of all the eggs that go into cold storage 86 per cent are stored during March, April and May.

That an enormous quantity of eggs are stored there is no question. It was estimated that on the first of July last year there were in forty-five cold storage houses 3,750,000 cases of eggs.

In this state no articles are allowed to remain in cold storage for a longer period than one year except by permission of the State Department of Health which may extend the length of time if the goods in question are found, upon examination, to be in proper condition for further storage. .

In the spring eggs are of the highest quality and therefore more fit for storage than eggs laid in the months of August when they are of the poorest quality.

SOME DIFFERENCES FOR THE PERIOD OF THIRTEEN WEEKS ENDING APRIL 1 OVER THE SAME PERIOD LAST YEAR IN TOTAL DEATHS AND CASES OF COMMUNICABLE DISEASES.

There has been an increase of 433 in the total number of deaths due mostly to pneumonia and influenza in January and February.

Nonresident deaths have increased fifty-four.

Six deaths have occurred from typhoid fever against eleven.

Tuberculosis deaths are the same, 302.

With the exception of whooping cough, cases of all communicable diseases have decreased.

Diphtheria, 620 against 809; measles, 1,305 against 1,600; scarlet fever, 850 against 962; typhoid, 36 against 59; tuberculosis, 632 against 695; whooping cough, 598 against 337.

For this period there were ninety-two deaths from diphtheria, scarlet fever and typhoid fever. Of this number 28, or over 30 per cent, were nonresidents, brought to Boston for hospital treatment from surrounding cities and towns.

NOTES.

It has been stated that for every baby who dies ten endure unnecessary sickness and many are handicapped for life.

It has been estimated that one half of the deaths of children under one year are preventable.

The nonresidents also contributed 143 to the total number of deaths attributed to accidents or violence, which was 818.

If the number of deaths of babies dying in Boston under one year whose parents were nonresidents were excluded from the total, the figure would be 1,712 against 2,044, or more than 15 per cent less.

SUMMARY OF VITAL STATISTICS.

There were 1,330 deaths reported in the five weeks ending April 1 against 1,309 in the corresponding period last year, and a death rate of 18.24 against 18.24.

Reported deaths of nonresidents numbered 193 against 150 last year.

Of deaths from reportable diseases the principal decreases were:

Scarlet fever	7
Typhoid fever	2

and the principal increases were:

Tuberculosis (all forms)	17
Whooping cough	4
Measles	4

Other important differences were as follows:

Decreases:

Organic diseases of heart, endocarditis and nephritis	24
Bronchitis	9
Accidental and violent	7
Puerperal diseases	

Increases:

"Other causes"	32
Premature birth	8
Erysipelas	6

There were 23 more deaths under 1 year, 15 more under 5 years, and 10 less over 60.

CAUSES OF DEATH.

	1915.	1916.
Cerebrospinal meningitis	2	4
Diphtheria	25	26
Measles	8	12
Scarlet fever	15	6
Pulmonary tuberculosis	114	116
Other forms of tuberculosis	14	29
Typhoid fever	5	3
Whooping cough	4	8
Anthrax	0	2
Tetanus	0	1
Accidental and violent	65	58
Bright's disease and nephritis and heart disease	310	286
Bronchitis	18	9
Cancer	92	93
Diarrhea and enteritis	16	20
Erysipelas	7	16
Pneumonia	210	208
Premature birth	27	35
Puerperal diseases	18	13
Other causes	359	388

The following is a Summary of the Work Done by the Different Divisions in the Department for the Five Weeks Ending April 1, 1916:

MORTALITY FOR THE FIVE WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	1,309	1,330
Nonresidents	150	193
Rate	18.24	18.24
Corrected rate, nonresidents deducted	16.15	15.59
Deaths under 1 year	176	199
Deaths under 5 years	278	293
Deaths over 60 years	428	418

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.	Total Deaths.	Nonresidents. Cases.	Nonresidents. Deaths.
Diphtheria	365	16	44	8
Scarlet fever	329	6	76	4
Measles	677	12	7	0
Typhoid fever	14	3	1	1
Whooping cough	212	8	6	0
Tuberculosis (all forms)	251	145	29	11

CENTRAL DIVISION.

Legal notices authorized	549
Forcible removals ordered	2
Prosecutions authorized	4
Stable hearings	3
Hearings	2
Lying-in hospital certified	1
Premises ordered vacated	6
Miscellaneous orders	6

Licenses — Permits.

Milk	177
Manicure — Massage	8
Hens	90
Licenses to peddle fruit and vegetables	205
Dump	12
Licenses renewed to remove bones, grease, etc.	67
Numbers assigned	212
Vehicles inspected and approved	327
Stable	1
Grease	38

MEDICAL DIVISION.

Number of visits by medical inspectors	2,140
Antitoxin given	44
Deaths investigated	37
Cases brought to Boston for treatment	150

Vaccinations	33
Vaccination certificate	1
Patients forcibly removed to hospitals	2

Public Health Nursing.

Communicable disease visits	3,276
Prenatal visits	57
Postnatal visits	5,905
New babies visited	1,688

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	2,039
Tuberculosis	421
Typhoid	87
Syphilis	170
Gonorrhea	329
Other examinations *	201
Bacteriological milk examinations	683

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	446
Calves inspected	4,507
Swine inspected	6,618
Animals condemned, whole	110
Parts condemned	306

Inspection of Provisions — Articles Condemned.

Meats and Fish:	
Poultry	9 pounds
Beef	41 pounds
Pork	78 pounds
Lamb	8 pounds
Salami	10 pounds
Veal	48 pounds
Flounders	25 pounds
Butterfish	25 pounds
Miscellaneous:	
Walnuts	500 pounds
Beets	35 pounds
Miscellaneous:	
Tomatoes	40 pounds
Cabbages	200 pounds
Onions	75 pounds
Eggs	277½ dozen
Carrots	50 pounds
Potatoes	985 pounds
Turnips	125 pounds
Stores examined	1,227
Prosecutions	16
Fines	$2,740

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	1,247
Bacteriological examinations of milk	681
Chemical examinations of vinegar	130
Chemical examinations of butter and cheese	139

* Examination of rats, 94; Malaria, 11; Ophthalmia, 77; Diphtheria virulence, 8; Genito-Urinary Tuberculosis, 9; Anthrax, 1; Glanders, 1.

Number of court cases	28
Fines	$330

SANITARY INSPECTION.

New reports	2,939
New tenement house reports	351
Legal notices recommended	549
Reinspections	5,429
Nuisances reported	3,912
Complaints investigated	1,142

MONTHLY METEOROLOGICAL SUMMARY, MARCH.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.88; highest, 30.25; date, 6; lowest, 29.00; date, 6.

TEMPERATURE.

Highest, 55; date, 26; lowest, 7; date, 18; greatest daily range, 25; date, 24; least daily range, 6; date, 3; normal for month, 35.00.

PRECIPITATION.

Total this month, 3.20; snowfall, 33.0; greatest precipitation in 24 hours, 0.68; date, 6, 7; snow on the ground at end of month, 0.0; normal for this month, 4.08; excess (+) or deficiency (—) of this month as compared with the normal, —2.88; accumulated excess (+) or deficiency (—) since January 1, —1.85.

WIND.

Prevailing direction, west; total movement, 8,870 miles; average hourly velocity, 11.9; maximum velocity (for five minutes), 36 miles per hour, from northwest on 8.

WEATHER.

Number of days clear, 16; partly cloudy, 4; cloudy, 11; on which .01 inch or more of precipitation occurred, 15.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 16; halos: solar, 4, 6, 18, 19, 24, 27, 28; lunar, 18, 20; hail, 0; sleet, 7, 8, 15; fog, 30; thunderstorms, 8, 22; frost: light: 0; heavy, 0; killing, 0.

This is a good time to get rid of the filth and rubbish that you have needlessly allowed to accumulate in your houses and yards and cellars. Besides cleaning your house give it a good airing and sunning.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

1559

APRIL, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population 748,431

Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

FREE WASSERMANN TESTS.

The Bacteriological Laboratory of the Boston Health Department is prepared to examine blood specimens by the Wassermann test for syphilis.

Tests are made each Tuesday, Wednesday, Thursday and Friday.

Patients for whom the test is requested should be sent to the laboratory, Room 1101, City Hall Annex, where the blood specimens will be taken.

History blanks will be mailed to any Boston physician on request, and each patient appearing at the laboratory must present one of these, carefully filled out and signed by his attending physician.

The laboratory will be prepared to receive these patients and to collect the blood specimens on Mondays, Tuesdays, Wednesdays and Thursdays, from 2 to 4 p. m., only.

Specimens will not be collected at any other time, nor will they be collected from patients coming without a carefully prepared history card.

Owing to the large number of requests, outfits for collecting blood specimens will now be furnished to physicians who call or send to the laboratory for them. The specimens must be returned to the laboratory by messenger. Culture stations are forbidden to receive them.

Physicians who desire instruction in taking these specimens may bring their patients to the laboratory at the regular hours for this work and the method will be demonstrated.

This test, like all laboratory tests furnished by the department, is without cost to physician or patient.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m. Sundays and holidays, inclusive, for the issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

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"When you are well, keep as you are."

A SURVEY OF TUBERCULOSIS IN BOSTON.

Under the system of town and city government in Massachusetts, certain definite powers are vested in the local boards of health. From these boards we must obtain our knowledge of the local tuberculosis conditions. On them depends the correct record of deaths, the enforcement of the law requiring notification, the recording of tubercular patients in the community, the proper supervision of the disease, and the isolation of the cases either at home or in hospitals. To them we must look for the general data regarding the disease.

The first duty of a health department is to keep a complete mortality record. The deaths from tuberculosis are apparently accurately reported in Boston, and there is no attempt made to minimize the number. Even when some other disease is given as the primary cause, and tuberculosis as the secondary, the death is entered on the mortality lists as due to tuberculosis.

As a rule there is no attempt at concealment by the physicians. To die from tuberculosis is not regarded as a disgrace or as reflecting unfavorably upon the honor of a family. There are certain diseases such as alcoholism, venereal diseases, and possibly cancer, where in deference to family feelings the real cause may be concealed and statistics may be somewhat fallacious. It is possible either through ignorance of the physician, or for the sake of life insurance, that at times pneumonia or bronchitis may be given as causes of death in persons who really have died of tuberculosis, but these are so infrequent

that the general mortality from tuberculosis is not affected, and our death rate from this disease may be regarded as fairly accurate.

There has been a steady decline in the number of deaths from tuberculosis since 1900, when the Health Department of Boston first began this work. In 1900, with a population of 561,892, there were 1,407 deaths from pulmonary and laryngeal tuberculosis. In 1915, with 748,341 inhabitants, the deaths were 1,072. This is a decline from 25.00 per 10,000 in 1900 to 13.82 in 1915.

In 1915 there were eighty-one nonresidents who died of tuberculosis in Boston, while 181 residents of Boston died in other places in Massachusetts, chiefly in state institutions. More residents of Boston go to hospitals in other places in the state for treatment for tuberculosis than come in from outside.

Notification.

In May, 1900, the Boston Board of Health first began to require that all cases of pulmonary and laryngeal tuberculosis should be reported. The idea was new and progress was slow. The medical profession did not heed the request readily. Hesitancy in making a diagnosis or regard for the patients' feelings caused physicians to delay notification of the disease or to neglect to report entirely. For the first four years the reported cases were less than the number of deaths. Efforts were made to correct this imperfect registration. Physicians were requested to give their reasons for failure to report. On August 1, 1907, the State Board of Health declared tuberculosis to be a disease dangerous to the public health, thus making it a criminal offence for a physician or householder to fail to report. More rigorous methods were then taken. Every death from tuberculosis that was not found in the registry of reported cases was investigated, and warning was given that delinquents would be prosecuted. Flagrant offenders were brought into court, and a number fined $50 each for failure to comply with the law. A great improvement resulted. The unreported deaths fell from 481 in 1907 to sixty-two in 1911, and in 1915 these had been reduced to twenty-seven. Apparently 97 per cent of all the cases are reported. Evidently the fear of punishment accomplished what gentler measures could not do. The few cases still unreported come mostly from hospitals where the disease is discovered only at time of death or from autopsy findings.

The following chart gives a view of the tuberculosis situation in Boston from the inception of the work until the present:

Pulmonary and Laryngeal Tuberculosis in Boston.

Year.	Population.	Cases Reported.	Deaths.	Deaths per 10,000.	Cases Unreported Until Death
1900	561,892	* 815	1,407	25.06	
1901	568,763	1,149	1,346	23.67	
1902	576,049	944	1,247	21.65	
1903	583,335	1,355	1,227	21.03	
1904	590,621	2,138	1,280	21.67	695
1905	597,908	2,168	1,224	20.47	605
1906	613,075	2,131	1,185	19.33	406
1907	628,242	2,623	1,138	18.11	481
1908	643,409	2,646	1,094	17.00	400
1909	658,576	2,905	1,072	16.28	320
1910	673,045	3,479	1,163	17.28	328
1911	684,811	3,137	1,067	15.58	62
1912	712,534	3,332	1,093	15.34	40
1913	724,493	3,195	1,064	14.69	46
1914	736,442	2,645	1,045	14.19	40
1915	748,431	2,775	1,034	13.82	27

* 7½ months.

In addition we receive weekly reports from the state hospitals of cases admitted with a Boston residence and of patients discharged who expect to make Boston their home. This greatly helps to make our registry complete.

Practically all reports come from physicians; it is rare for a case to be reported by a householder.

The reporting of tuberculosis is well enforced, but there are some elements in tuberculosis registration that are not so satisfactory.

On receipt of a report of tuberculosis a visit is at once made to the address by a medical inspector, but this is often found to be fictitious or carelessly given. Perhaps the number given on the reporting card is not on the street; an empty lot, store or business block is all that is found. In other instances, though the number is found, no person by the name given lives at the address.

Patients upon discharge from tuberculosis hospitals often give incorrectly their intended residence. Cases in cheap hotels and lodging houses are frequently never located.

This happens on the first visit. On later visits to those who were correctly listed many have changed their residence

and cannot be found, some have gone to other towns, states or foreign countries, while others, of whom we have no complete record, have died elsewhere.

These are some of the difficulties that a health department has to contend with in its endeavor to keep tuberculosis cases under supervision.

As a result of these many changes a large number of cards accumulate in a tuberculosis registry. No clear idea of the tuberculosis situation can be obtained unless these are thoroughly sifted.

Of the deaths that occur annually in Boston from tuberculosis 67 per cent have not been reported for more than one year; 17 per cent for not more than two years; 11 per cent for not more than three years. That is to say that most of the deaths have not been reported for more than three years, and a period of from four to five years covers practically all. A tuberculosis registry must be revised regularly to be of value.

For this reason the Boston Health Department has made a general survey of all the cases in its registry up to January 1, 1916.

There were about 12,200 names of pulmonary and laryngeal cases on file in our registry. A visit has been made to every address by the medical inspectors of this department.

Only 5,100 were definitely located. Most were at home but some were in tuberculosis hospitals either in Boston or in other places in the state; 4,600 cases had disappeared, some of whom had moved from the city to other towns, states or countries, some had died in other places, most were unknown.

Information was obtained that 2,500 were supposed to be living in Boston, but their addresses could not be found. How many of these are actually here can only be estimated.

Number of Cases in Boston.

The number of pulmonary and laryngeal tuberculosis cases in this city is probably not more than 7,000, and certainly not less than 6,000. The number of cases is at least six times the number of the annual deaths from the disease. Owing to the difficulty in locating the patients, no more accurate estimate can be made at present.

The conditions of tuberculosis in Boston show much improvement. It is a great satisfaction to state that not a single neglected bed-ridden case was found in the city. Most of the patients who would have come under this class had gone voluntarily to hospitals. Others had been removed to

hospitals by order of the Health Department because their presence at home was a danger.

At the present time practically all the advanced cases that cannot be cared for at home can find suitable hospital accommodations. If the whole campaign against tuberculosis had accomplished no more than this it would have well repaid the efforts expended.

Hospital Accommodations.

There are available in the Boston Consumptives' Hospital 410 beds, sixty of them for children; the trustees of the hospital are authorized also to hire 100 beds in private hospitals. At Long Island there are seventy-five. This gives 585 beds under city control. In addition, there are 131 in private tuberculosis hospitals.

In the State Hospitals at Rutland, Westfield, Lakeville, North Reading, there are 1,000 beds, and in the State Institution at Tewksbury 425, giving in all accommodations for 1,425 patients. To these hospitals Boston sends its share of patients.

It has been estimated that as many available beds as there are deaths annually from this disease should be the minimum standard for real progress in tuberculosis work. This figure has almost been reached when the available beds in the city and state are considered.

Of the cases that were located 400 gave the information that "the disease was arrested or quiescent." A small number claimed that they were not suffering from the disease.

The educational campaign is bringing results. The hysterical fear of the disease that was at first entertained has given away to more rational views. The sufferers seem to have improved in their knowledge of the disease, and considerable effort is made by them to improve their own health and protect others. Wherever possible they had their own separate room and used precautions in regard to care of sputum, cleanliness of hands and danger from coughing.

Boston endeavors to keep all cases under supervision. A visit is made by the medical inspector of the Health Department, on the receipt of the first report, and subsequent visits are made by the visiting nurses of the Boston Consumptives' Hospital. A history of each case is obtained and kept on file, but owing to the disappearances in a short time of many cases, not more than two thirds can be kept under observation at any time, in spite of our best efforts. If progress is to con-

tinue it will be necessary to have more of the cases under supervision and if possible cut off the sources of infection.

As a result of survey we find:

1. That the deaths from pulmonary and laryngeal tuberculosis have been slowly but steadily decreasing in this city.
2. That the cases are well reported.
3. That hospital accommodations are satisfactory.
4. That there are no neglected cases in the city.
5. That the general knowledge of tuberculosis has much improved, and cases treated at home are cared for in an intelligent manner.

EXERCISE.

The weaker the body the more it commands;
The stronger, the more it obeys.

To have our bodies strong, therefore, exercise is necessary, and this applies to the strongest as well as the weakest. People who indulge in it are better mentally and physically, they feel better in themselves and in their attitude towards their neighbors.

Exercise is advantageous to both young and old. The weak, the strong, the heavy and the thin all gain immeasurably by it, and the most desirable kind of exercise is that which is beneficial, pleasing and safe. The more spirit that is put into it the greater the results to mind and to body.

Everyone should take some form of exercise daily, and with the coming of the warm weather our minds naturally turn to exercise outdoors, which is the best kind of all. Take your exercise in the open air if possible and where the air is purest and freshest if practicable.

It is not necessary to indulge in any form of violent exercise outdoors, neither is it essential that you lift heavy weights to gain physically. For comparative purposes the person on the farm is better equipped to improve physically than the man in the gymnasium indulging in one or two forms of gymnastics that develop large muscles.

If not accustomed to exercising we should begin gradually and slowly increase the amount until we think we are taking sufficient. The individual is the best judge of the amount necessary for himself. Exercise that produces perspiration and fatigue, not exhaustion, develops an appetite and induces sleep is the kind to indulge in, for when a person's mind and body are right much of his worry ceases.

Still water becomes stagnant, whereas running water purifies itself. An engine will rust out quicker than it will wear out. So is it with the human body. A body that is kept oiled by exercise which produces a satisfactory blood circulation is one that will not quickly give out. The work that is done daily in the office or the shop may, in your opinion, be sufficient, but it is not, because only certain muscles are strengthened. An exercise where the whole body is brought into play and where pure air is breathed is real exercise.

Walking is the cheapest, simplest and best form of exercise and swimming and rowing follow. Golf, baseball, tennis, quoits, handball, mountain climbing, horseback riding are warm weather exercises that are most beneficial. Surely everyone should be able to devote at least a short time daily to one of these activities.

Interest in any game makes you forget the exercise you are taking. If the exercise is a pleasure and you have companions it is of increased value. When exercise becomes laborious its good effects are materially reduced.

Take any kind of outdoor exercise this summer, even if for only a short period each day, and you will find that your appetite has increased, your digestion aided, your nervousness diminished, with a restful sleep at night. If you attain these things the lesson will be taught and the best insurance in the world will be yours.

TRACHOMA.

Trachoma, which is as old as the days of the Romans and the Egyptians, is an inflammation of the conjunctiva which originates in infection from a trachomatous to a nontrachomatous eye. The causative organism has not yet been found despite the fact that much time and effort has been spent to isolate it. It may be that there are several distinct germs which cause the symptoms.

Infection is caused by the secretion from a trachomatous eye transmitted by towels, handkerchiefs, bed linen, etc. The history of the disease shows that in cases where it has apparently disappeared it has shown itself later in a more serious attack.

No one dies as a result of trachoma but about half of those

who have it eventually become blind. It is slow as regards contagion but nevertheless runs through families, schools and communities.

Trachoma was undoubtedly brought to this country from Europe where it has been prevalent. In one country cases found in the army were sent home to rid the army of any chance of infection, but the disease spread in the districts where the discharged soldiers lived. It has been stated that in Egypt 90 per cent of the population has trachoma. The records of this government show that most of the trachoma now found is derived from aliens coming from Southern Europe, but trachoma was also found when the large influx of immigrants was coming from Northern Europe.

Although generally found in cities along the Atlantic seaboard, it is also present in certain sections of the South and the West. Trachoma is prevalent in Virginia, West Virginia, Southern Illinois, Arkansas and the mountains of Southern Missouri. Years ago it was found among the Appalachian Highlanders and Indians.

In Kentucky it is estimated that there are 33,000 cases, and among the 323,000 Indians in this country, 20 per cent are afflicted. There are cases on all the Indian reservations excepting those in New York State.

Deserting seamen spread this disease, and there have been thousands of them. During 1913–14 there were 5,755 aliens deported, and in 1906, 29,600 at foreign ports were prevented from embarking on account of the presence of this disease.

There were thirty cases in this city last year.

PREVENTION OF TYPHOID FEVER.

Among the measures for the prevention of typhoid, the most important are the proper care and isolation of the patient, the careful disinfection or immediate destruction of the excreta, disinfection of the clothing, bed linen and utensils used by patient, and disinfection of the clothing and hands of the attendants before they come into contact with other people or handle food. Sanitarians believe that typhoid should be reported as a contagious disease, and isolation of the patient and the proper care of the excreta insisted on, although house quarantine is not in any way necessary.

Another measure of importance is the care of convalescent patients, who continue to discharge bacilli in their excreta for variable periods, and of the still more dangerous class of

"typhoid carriers." The latter are, under present conditions, difficult to trace and to control and one such may be the cause of several epidemics. The legal control of such carriers is desirable, especially to keep them from any trade that involves handling milk or food supplies.

Of other measures for the prevention of typhoid, the protection of water, milk and food supplies are most necessary.

It has long been known that a polluted water supply results in an excessive prevalence of typhoid fever.

The typhoid death rates of many cities have been markedly reduced by purification of the water supplies. The importance of a pure water supply in rural communities must not be overlooked.

The protection of the milk supply is also of great importance. Infection of the milk usually comes from lack of personal hygiene and from uncleanliness in the care of pails and bottles; often from washing the milking utensils in typhoid-infected water, or from typhoid carriers handling the milk. Clean dairies, proper methods of handling, pure water supply on dairy farms, and exclusion of carriers from the milk trade are necessary in the prevention of typhoid fever. Where these are not guaranteed, pasteurization and prompt refrigeration of milk must be resorted to.

Food supplies may be infected in various ways — oysters and shell fish by sewage polluted waters; uncooked fruits or vegetables from infected fertilizer (night soil), etc. The most common and most dangerous source of food infection, however, in unsewered districts, is from flies, who serve as carriers of the infection from infected excreta. Food may be exposed to flies either in the market or in the home. The destruction of flies, prevention of their breeding, thorough screening of food, and disinfection of all typhoid excreta are therefore important measures of typhoid prevention.

Another method which promises to be of great importance in the prevention of typhoid fever is that of typhoid vaccination. Enough is known about its efficacy to warrant its extensive use. In the army, the navy and in the large cities of the country it has proven its value. Typhoid vaccination has also demonstrated its great worth in hospitals, asylums, camps, etc., and while especially adapted for these special groups it can be used to advantage in ordinary practice under certain conditions.

This department is ready and willing at all times to inoculate those who wish to take the preventive treatment and this period of the year is a good one, especially for those about to leave for vacations in the country.

Typhoid inoculation is especially recommended for:

1. Physicians, nurses and hospital attendants.

2. Families where there is a typhoid carrier or those especially exposed to the disease.

3. People who travel or settle in places that are habitual foci for typhoid fever.

4. Those already living where typhoid fever is especially prevalent.

It is not expected, however, that typhoid vaccination can ever displace or supersede proper sanitary measures. It is only a useful adjunct under certain special circumstances.

TYPHOID IN THE LARGE CITIES OF THE UNITED STATES IN 1915.

The annual survey of typhoid fever mortality in those cities of the United States having over 100,000 population as presented by the "Journal of the American Medical Association," published in Chicago, places Boston second in the list of cities of over 500,000 population as regards typhoid fever for last year.

Figures compiled by this department made the rate in this city 5.3 per 100,000. The "Journal" calculated the rates on the basis of population as estimated according to the methods of the United States Census Bureau. The Cincinnati Health Department in its comparison credits Chicago and Boston with the same rate, 5.4. The table follows:

Cities Over 500,000 Population.

City.	Deaths from Typhoid per 100,000 Population.		Average.	Average.
	1915.	1914.	1911–1915.	1906–1910.
Chicago	5.4	7.1	8.2	15.8
Boston	5.5	9.1	8.0	16.0
New York	6.0	6.2	8.0	13.5
Philadelphia	6.6	7.4	11.2	41.7
St. Louis	7.0	11.1	12.1	14.7
Cleveland	7.8	8.3	10.0	15.7
Detroit	12.8	13.0	18.1	21.1
Baltimore	21.9	22.4	23.7	35.1
Pittsburgh	24.7	13.8	18.7	65.0

Commenting on the Boston situation it says:

Boston also experienced an explosive outbreak of typhoid fever which was apparently due to an infection of picnickers who drank water from a brook in Franklin Park. Remarkable recklessness in choice of drinking water seems to have been shown in this case, since the water was taken from an open running brook exposed to all sorts of chance contamination, although bubbling fountains supplying good drinking water were only a few feet away. Such incidents are likely to occur as long as the general public is insufficiently educated on the dangers of contracting typhoid fever, and the responsibility in such cases can hardly be properly attributed to the Board of Health. Notwithstanding this outbreak, the Boston typhoid rate is exceedingly low, and practically ties that of Chicago for the post of honor in this group.

BOSTON'S BABY DEATH RATE.

In 1915 there were in Boston 19,685 births, and 2,045 deaths of children under one year of age. This means that 104 babies died last year to each thousand births. Boston's baby death rate in 1915 was therefore 104, while in 1914 it was 103, the lowest rate ever recorded for the city. In 1908 Boston's rate was 148, which, contrasted with last year's rate of 104, means that forty-four babies were saved last year for every thousand births, or a total saving of 866 babies in one year.

But the goal has not yet been reached. Boston will not be satisfied so long as still lower death rates are possible.

A glance at the rates of the ten largest cities in the United States shows that Boston was third last year:

Baby Death Rates in 1915.

St. Louis	82.07	Buffalo	108.2
New York	98.2	Pittsburgh	110.00
Boston	103.89	Cleveland	110.7
Philadelphia	104.03	Chicago	114.00
Detroit	104.6	Baltimore	141.1

But even the lowest rate in the above table is far above baby death rates in some other places. New Zealand can boast of a rate of fifty-one, and in our own state last year Watertown had a rate of forty-four. These are records to be proud of, and speak volumes for the people of these places.

But how is Boston to lower its rate below 100, and then below fifty? How is this great saving of child life to be accomplished? Already the Health Department, the Baby Hygiene

Association, the Floating Hospital and many other organizations are doing splendid work.

For example, the Health Department has now twenty-two nurses who visit the babies daily. These nurses average about 1,500 such visits a week. They instruct the mothers in the care and feeding of well babies, and they refer sick babies to doctors or to hospitals.

The Baby Hygiene Association also has a corps of nurses and maintains many milk stations. The Floating Hospital is a wonderful boat which does glorious work for the sick little tots of Boston and vicinity.

So far, so good; but what more can be done? All this work has made possible our present rate of 104, but a rate below fifty is wanted.

Suggestions like the following are in order:

The formation of little mothers' clubs all over the city.

The teaching of baby hygiene in the schools.

The more extensive use of moving pictures to show how the baby should be cared for and fed.

More and more emphasis by doctors upon the great benefits to be derived from breast feeding.

More nurses to teach the mothers.

More attention to this subject by the clergy of all denominations.

And last but not least, more educational work along this line by the newspapers.

In a word, teach the people in every possible way how to give their babies the best care, and upon all occasions drive home the following points:

1. Give the baby breast milk. (If this were done by all mothers in Boston, statistics indicate that our baby death rate would drop from 104 to sixty-eight.)

2. Nurse the baby at regular intervals.

3. Keep the baby cool in summer — do not overdress it.

4. Keep the baby quiet — let the baby sleep all it will — do not let people handle and kiss the baby.

5. Give the baby plenty of fresh air — in nice weather take baby out of doors daily, but in summer avoid the broiling sun.

6. Protect the baby from flies and mosquitoes.

7. Give the baby a daily bath.

8. If the baby is sick, vomits or has diarrhea, consult a doctor at once.

No single remedy will prove a panacea for all conditions. The plan must be an intelligent fight along all possible lines and coöperation among all workers.

EXTENT OF HEALTH AUTHORITY LIMITED.

Laymen generally believe that boards of health possess unlimited powers in the oversight and regulation of many matters which are of importance to the welfare of the community as well as of those of insignificant moment.

As a matter of fact such authority is not clearly outlined by law, and not infrequently boards of health are powerless to act by reason of lack of legal sanction.

While it is not desired to regulate unnecessarily, at least reasonable authority should be granted to boards of health to carry on the work which is expected of these agencies by the community.

It is suggested that an effort be made in support of the enactment of a concise statement whereby boards of health shall be granted power to issue regulations concerning subjects deemed to be inimical to the welfare of the public health, and that such decrees be given the authority of law.

LOBSTERS WITH A "SPRING."

An ingenious way to defraud people, and probably poison many of them, was discovered by inspectors of the Food Inspection Division in connection with a seizure of a lot of lobsters.

The common test to ascertain if a lobster is fresh, that is, that it has been boiled alive, is to turn back the tail and if it has been boiled alive it will swing back to its natural position. The average peddler in showing his wares demonstrates this to the hesitating purchaser. A lobster boiled dead, consequently bad, does not respond to this simple test.

A barrel of lobsters on a wagon was examined. According to the test all were fresh. As a matter of fact they responded so well to the test, the swing-back was so quick and strong, that suspicion was aroused.

Closer examination revealed the fact that each lobster was equipped with a red rubber band, about the color of the lobster, put around the crustacean's tail in a skillful yet simple manner, and which could not be detected unless a close examination was made. This small contrivance compelled the tail of the lobster to swing back, imitating the action of a fresh lobster.

The entire lot of lobsters was seized and a summons issued for the appearance of the dealer in court. The penalty for such an offence is a fine of not more than two hundred dollars, or imprisonment for not more than six months, or by both such fine and imprisonment.

ACTS OF THE LEGISLATURE.

Four bills presented at this session of the Legislature after making some progress were finally defeated.

They were the bill to allow unvaccinated children to attend the public schools; giving an "herb doctor" exemption from registration; on the practice of midwifery, and the bill to allow women to be members of health boards.

The Legislature has passed a bill authorizing the expenditure of $10,000 by the State Board of Health for the manufacture of salvarsan.

SURGERY IS SUCCESSFUL IN

	Percentage of Cases.	
	Early Operation.	Delayed Operation.
Cancer of the breast	80 per cent	25 per cent
Cancer of the lip	95 per cent	60 per cent
Cancer of the tongue	80 per cent	15 per cent

DO YOU KNOW THAT

Today is always the best day to clean up?

Fresh air, food, rest — these three combat tuberculosis?

Overeating, constipation, lack of exercise, foul air, eye strain, may produce headache?

Polluted drinking water causes many deaths?

An efficient health officer is a good community investment?

Bad teeth handicap children?

Insufficient sleep endangers health?

Light promotes cleanliness?

A clean mouth is essential to good health?

Physical training in childhood is the foundation of adult health?

Headache is nature's warning that the human machine is running badly?

Bullets may kill thousands, flies tens of thousands?

Obesity menaces longevity?

EXAMINATIONS OF MILK.

The following is a record of the bacteria counts and fat analyses for the month of April made by the Medical Milk Commission of Boston:

CHERRY HILL FARM.

	Bacteria Counts.	Fat Tests.
April 3	1,600	
April 10	1,500	
April 17	2,500	
April 20	—	4.05
April 24	16,500	

MIDDLEBROOK FARM.

April 3	1,400	
April 10	900	
April 17	700	
April 20	—	4.10
April 24	750	

MASSACHUSETTS AGRICULTURAL COLLEGE.

April 3	350	
April 10	1,250	
April 17	1,600	
April 20	—	3.70
April 24	600	

PROSPECT HILL FARM.

April 3	21,000	
April 7	2,200	
April 10	1,400	
April 17	2,200	
April 20	—	4.50
April 24	2,500	

HAMPSHIRE HILLS DAIRY.

April 3	1,350	
April 10	700	
April 17	900	
April 20	—	3.80
April 24	800	

REPORT OF THE HEALTH UNIT FOR THE MONTH OF APRIL, 1916.

Visits by medical inspector:	
Contagious	106
Tuberculosis	33
Ophthalmia	16
Miscellaneous	13
Total	168
Cases visited by nurses:	
Medical	219
Babies	736
Total	955
Defective sanitary conditions found in tenement houses,	124
District physician's calls	105

Instructive District Nursing Association.

Visits made by nurses	564

Associated and Hebrew Federated Charities.

Cases investigated and assisted	14

NOTES.

Every person using a bubbling fountain should bear in mind that the object of this sanitary device is to prevent the interchange of mouth secretions.

Deaths from typhoid fever thus far continue to show a decline as compared with the number at this time last year.

The Department of the College of the City of New York has provided for a laboratory to be used in part by city employees for testing building materials.

SUMMARY OF VITAL STATISTICS.

There were 984 deaths reported in the four weeks ending April 29, against 1,100 in the corresponding period last year, and a death rate of 16.87 against 19.16.

Reported deaths of nonresidents numbered 115 against 152 last year.

Of deaths from reportable diseases the principal decrease was:

Scarlet fever	5

and the principal increases were:

Tuberculosis (all forms)	8
Cerebro-spinal meningitis	3
Measles	2

Other important differences were as follows:

Decreases:	
"Other causes"	45
Pneumonia	34
Cancer	11
Bronchitis	11
Puerperal diseases	8
Premature birth	7
Accidental and violent	7
Diarrhea and enteritis (2 years and over)	7
Increases:	
Organic diseases of heart, endocarditis, pericarditis and nephritis	10

There were 42 less deaths under 1 year, 32 less under 5 years, and 9 less under 60.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	1,100	984
Nonresidents	152	115
Rate	19.16	16.87
Corrected rate, nonresidents deducted	16.51	14.90
Deaths under 1 year	185	143
Deaths under 5 years	254	222
Deaths over 60 years	336	327

CAUSES OF DEATH.

Anterior poliomyelitis		1
Anthrax		1
Cerebro-spinal meningitis	1	4
Diphtheria	19	19
Malaria	—	1
Measles	2	4
Scarlet fever	10	5
Tetanus	1	1
Trichinosis	—	1
Pulmonary tuberculosis	92	97
Other forms of tuberculosis	16	19
Varicella	1	—
Whooping cough	8	7
Accidental and violent	65	58
Heart disease, endocarditis, pericarditis and nephritis	218	228
Bronchitis	20	9
Cancer	77	66

Diarrhea and enteritis (under 2 years)	16	12
Diarrhea and enteritis (2 years and over)	7	—
Erysipelas	7	5
Meningitis and encephalitis	10	6
Old age	—	2
Pneumonia	178	144
Premature birth	34	27
Puerperal diseases	17	9
Rheumatism	2	4
Other causes	299	254

The following is a Summary of the Work Done by the Different Divisions in the Department for the Five Weeks Ending April 29, 1916:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.	Total Deaths.	Nonresidents. Cases.	Nonresidents. Deaths.
Diphtheria	230	19	36	3
Scarlet fever	215	5	51	2
Measles	719	4	3	0
Typhoid fever	12	0	1	0
Whooping cough	128	7	0	1
Tuberculosis (all forms)	207	97	14	11

CENTRAL DIVISION.

Legal notices authorized	969
Forcible removals ordered	5
Prosecution authorized	1
Stable hearing	1
Hearings	2
Lying-in hospital certified	1
Premises ordered vacated	2
Miscellaneous orders	5
Culture station assigned	1
Prosecution	1
Fines	$3

Licenses — Permits.

Milk	1,309
Manicure — Massage	17
Hens	1,200
Licenses to peddle fruit and vegetables	217
Dump	8
Licenses renewed to remove bones, grease, etc.	2
Numbers assigned	231
Vehicles inspected and approved	442
Sundry licenses	2
Places assigned	2
Stable permits refused	2
Grease licenses	38
Manure license	1

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	1,847
Antitoxin given	43
Deaths investigated	22
Cases brought to Boston for treatment	57
Vaccinations	4
Vaccination certificate	1
Physical examination	1
Patients forcibly removed to hospitals	5

Public Health Nursing.

Communicable disease visits	2,994
Prenatal visits	32
Postnatal visits	1,354
New babies visited	4,368
Total visits by nurses	8,748

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	1,304
Tuberculosis	401
Typhoid	94
Syphilis	222
Gonorrhea	177
Other examinations *	159
Bacteriological milk examinations	533

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	219
Calves inspected	1,680
Swine inspected	4,880
Animals condemned, whole	31
Parts condemned	266

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	156 pounds	Onions	100 pounds
Beef	11 pounds	Walnuts	580 pounds
Pork	25 pounds	Beans	25 pounds
Lamb	10 pounds	Cranberries	32 pounds
Veal (immatured)	484 pounds	Macaroni	45 pounds
Veal (tainted)	12 pounds	Stores examined	1,175
Haddock	2 pounds	Prosecutions	3
		Fines	$260

* Examination of rats, 95; Tænia, 1; Malaria, 11; Ophthalmia, 34; Leprosy, 1; Genito-Urinary Tuberculosis, 8; K. L. virulence, 2; Anthrax, 1; Paratyphoids, 4; Meningicoccus, 1; Rabies, 2.

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	962
Bacteriological examinations of milk	567
Chemical examinations of vinegar	99
Chemical examinations of butter and cheese	169
Chemical examinations of ice cream	10
Number of court cases	30
Fines	$345

SANITARY INSPECTION.

New reports	3,421
New tenement house reports	91
Legal notices recommended	969
Reinspections	4,775
Nuisances reported	5,504
Complaints investigated	1,280

MONTHLY METEOROLOGICAL SUMMARY, APRIL.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.91; highest, 30.26; date, 4; lowest, 29.21; date, 9.

TEMPERATURE.

Highest, 68; date, 1; lowest, 32; date, 8; greatest daily range, 24; date, 11; least daily range, 2; date, 23; normal for month, 45.3°.

PRECIPITATION.

Total this month, 4.51; snowfall, 4.2; greatest precipitation in 24 hours, 1.30; date, 22–23; snow on the ground at end of month, 0.0; normal for this month, 3.56.

WIND.

Prevailing direction, northwest; total movement, 8,221 miles; average hourly velocity, 10.0; maximum velocity (for five minutes), 32 miles per hour, from northwest, on 18th.

WEATHER.

Number of days clear, 9; partly cloudy, 7; cloudy, 14; on which .01 inch or more of precipitation occurred, 14.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 1, 3, 6, 8; lunar, 11, 12; hail, 0; sleet, 0; fog, 0; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

1559.

MAY, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

Rec'd
FEB 1

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.

Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wasserman Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market Street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Pedlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m. Sundays and holidays, inclusive, for the issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, MAY, 1916. NO. 5

"The health of the people is the first law."

SUMMER HYGIENE AND EXPOSURE TO THE SUN.

The discomfort of the extreme heat in summer is due to the inability of the body to eliminate the heat that is produced, and a consequent increase above the normal of body temperature. This effect is increased by high humidity.

The hygiene for summer, therefore, should aim to allow free elimination of moisture from the skin (perspiration), and to diminish the production of bodily heat. For these purposes, frequent baths are indicated; loose, light, porous clothing should be worn, allowing air to circulate freely; heat producing substances in the diet should be avoided, and heavy muscular work in the hottest period of the day should be limited as much as possible. The diet for summer should be well balanced; for one accustomed to a heavy meat diet, the proportion of meat should be diminished, but for those who are doing muscular work or taking physical exercise there should be a good percentage of protein foods; the proportion of fats should also be diminished. Vegetables, both cooked and in salad form, fruit properly ripened, eggs, and milk or the fermented milks form a valuable part of the summer dietary.

For those leaving home for the summer vacation the same general rules hold good. In choosing the summer home, care should be given to general sanitation, especially proper sewage disposal, pure milk and water supply, and the protection of the house from flies and mosquitoes. Those who are accustomed

to a sedentary life should not attempt too violent or too much physical exercise at first, but should begin with the milder forms of exercise and increase gradually.

The exact effect of the sun's rays is not well understood; of course the heat is increased by these rays, and in hot days prolonged exposure should be avoided for this reason. Several authorities believe that the chief effect of the sun's rays is due to the actinic rays, and that this action is first stimulating, and then overstimulating and exhausting, so that for this reason also prolonged exposure to sunlight should be avoided, even if the heat is not extreme.

It is claimed that the stimulating effects of sunlight are more marked with blonds than with brunettes, on account of the protective power of skin pigmentation. Sunburn is also due to the actinic rays, and with some persons may be severe enough to cause serious pain. Much depends on individual idiosyncrasy and no general rule can be stated, except that any exposure should be avoided that causes symptoms of discomfort and beginning exhaustion.

For the normally healthy person, sea bathing is a tonic and a healthful exercise, if taken in moderation. Bathing when overheated or exhausted should be avoided; the best time to bathe is in the morning, an hour or more after the morning meal. The bath should not be too prolonged; from fifteen to twenty minutes is the general rule, not over thirty, and should be followed by a good reaction with a sense of warmth and stimulation. Exposure to the outer air in wet bathing garments is to be avoided when the air is cool on account of the danger of chill. If the air is warm a short exposure to the sun is not harmful.

Prolonged exposure to the sun in the bathing suit is to be avoided, both on account of the danger of an excessive degree of sunburn and of the overstimulation by the actinic rays previously mentioned. The practice of repeated "dips" in water and exposures to the air and sun is generally condemned by hygienists.

There are certain contra-indications to sea bathing, and a person not in good health should not attempt it without consulting a physician. Failure to react properly, and prolonged chilliness after a bath indicates either that the bath is continued too long, or is entirely unsuitable.

Heat exhaustion or heat stroke is comparatively common among those who must perform heavy muscular labor during the hottest hours of the day. Direct exposure to the sun is not

necessary to cause certain types of heat stroke. It is due to the production of more body heat that can be eliminated and the consequent interference with the metabolic processes of the body. The danger is increased by excessive clothing and uncleanliness, interfering with the elimination of heat, also by overexertion, overeating and by the use of alcohol.

THE SANITATION OF A SUMMER CAMP.

A summer camp is a device for seeking health and pleasure without modern conveniences. Campers are persons who, of their own volition, or through the enticement of others, revert to primitive modes of existence and ostensibly obtain enjoyment therefrom. Both place and persons then favor the development of irregularities, encourage more or less irresponsibility and lead to immediate wildness. In this there is no harm and often much good. However one thing should not be forgotten — the arrangements. Allow the "animals" to break loose once more for the seasonal enjoyment, but by all means have the camp sanitary so that in their wildness they will do no harm.

For, be it remembered that he who selects a suitable site, pitches his tent or builds his hut in a proper manner, examines his food, and protects himself from his natural enemies is a wise camper indeed.

The camp site is important. Select high ground where the breezes blow and the drainage is good. Only a veritable amateur will occupy the space where another camp has been, for the filth, the flies and the food remnants are probably still there. Seek another location. If you are not satisfied, move; you probably haven't leased the premises and you ought not to put up with faulty conditions.

The water supply should be pure. The source should be known and proved to be uncontaminated and if there is the slightest suspicion of the quality of the water it should not be used without boiling. This is a practicable and easy method of rendering any water safe for consumption. A second method is by the use of bleaching powder. Add a teaspoonful of a good quality chloride of lime to one pint of water and keep in a well stoppered bottle. A teaspoonful of this solution should be placed in two gallons of the water to be treated and, after standing for thirty minutes, the water is absolutely safe for consumption.

Guard against insects of all varieties; many are not only tormenting but disease carriers as well. Screen the cabin, the tent, or the hut — even the most primitive people protect themselves in this manner. Flies frequently spoil an otherwise successful camping trip. Remember that they breed in manure and filth and that the camper himself is therefore often responsible for their presence. Make the handy man clean up and keep the grounds policed. A little borax added to the manure or filth inhibits the development of the larvæ and should be in every outfit. Watch the mosquitoes. They carry in their sting more than a temporary annoyance. See that the campfire conveys a little smudge at night. Oil the pools and screen the sleeping place if you have not forgotten to put a few yards of netting in your kit. Anoint yourself. There are really a few preparations which mosquitoes do not like. One is castor oil and pine tar, equal parts, and another is oil of citronella.

Dispose of all human and animal wastes in a proper manner. Burn whatever is destructible; bury deeply what you cannot burn, and protect that which you cannot bury. If your site is more or less permanent handle garbage in properly covered cans and then incinerate. Just as tin cans have marked the pathways to the West, so they indicate camp sites for all time to come. They have no other usefulness except as breeding places for mosquitoes. Why not consign them to their grave while they are still in the heyday of existence? Do not permit the cook to scatter dish water indiscriminately about; it attracts flies, decomposes, and is otherwise objectionable. Fasten a sign to this effect upon the nearest tree, or if you have your courage with you emulate another and nail it to the kitchen door.

Provide a suitable toilet. Remember that soil pollution is one of the great causes of disease in our country today. Do this then not alone for your own protection and convenience but for the welfare of others. The pail system may be used or a trench dug, utilizing dry earth or chloride of lime for covering. Be sure to protect it from insects by screening. When abandoned make it your business to see that it is not objectionable in any manner and of no danger to those who follow in your footsteps. Do not pollute the streams. That man should lessen the charm of the wayside brooks, the very voices which called him from afar, is inconceivable.

Be careful of the porvender. Select only proper foodstuffs,

those whose quality is known, and properly preserve them. Use the stream for cooling and that world-old device of lowering temperature by the evaporation of water. Secure ice if possible, keeping it in the camp refrigerator made by placing one box within another with hay between and care for all perishable food products in this manner. Do not forget that the news of your coming has been wafted abroad by innumerable winged and other malevolent insects and that they are gathering for a feast unheard of in all the days of their existence; therefore screen your food, hang it high and guard it zealously.

Interest yourself in your own welfare. Be moderate. Beware of the farmer's corn and cucumbers; eat sparingly of the concoctions to which you are unaccustomed, and glance at the well of boyhood days only with suspicion. Don't allow the weather or the children to annoy you, rest as well as you can, show the youngsters what father can do when he has the proper environment, and imagine what a wonderful time you are having. Then when it is all over we'll get together again, tell of the fish we've caught and recite our numerous adventures and begin to plan for the season to come.

THE BOSTON FLOATING HOSPITAL.

On June 28 the Boston Floating Hospital will begin on what promises to be another successful season for child welfare in Boston.

This most worthy, novel and practical hospital sails daily at 9 a. m. from its berth at the North End Park Pier and after cruising about the lower harbor all day returns to its dock at 4.30. Then in the evening the permanent patients get an additional outing and chance for fresh air when the boat leaves at 7.30 for an anchorage in the lower harbor, remaining there until 6 a. m. the following morning.

This large and commodious boat has accommodations for 100 permanent patients, besides additional accommodations for 100 daily patients with their parents. Besides a large staff of regular hospital attendants, orderlies, dieticians, and physicians it has a corps of 74 nurses to take care of the babies. One thousand five hundred separate feedings are made every twenty-four hours. Infants who are taken home in the evening after the day's cruise are supplied with enough feedings to take care of them until the next day.

Application for an outing should be made before 8.30 a.m.

of the day of sailing. Critical cases are taken at any time. Children suffering with any communicable disease are not allowed on the boat.

Blank applications are furnished hospitals, physicians, nurses and all workers engaged in baby welfare and may be had by applying to Mr. G. Loring Briggs, 54 Devonshire street, Boston, Tel. 3359 Main, or by telephone maintained at the pier, 22357 Rich.

CARE OF INFANTS IN SUMMER.

During the summer months more attention must be given to the care of the infant at home since during the hot weather an enormous number of unnecessary and avoidable deaths occur.

Diarrheal diseases, convulsions and other disorders peculiar to the hot summer weather are the leading causes of deaths of infants during the hot summer months. Infants, babies and young children are done much injury by perishable foods on account of the harmful effects of the heat upon the food. Of course this is particularly true of cow's milk.

At this time especially overeating and overfeeding by infants should be prevented. Breast milk is the best at all times. It is the safest, cheapest and best of all infant foods.

There will be less trouble this summer if mothers take heed and feed their infants at the breast. The hot weather always brings with it bowel trouble in bottle-fed babies.

If the mother is unable to nurse her baby she should consult her physician before feeding the baby on the bottle. Nursing and not weaning is the proper thing in hot weather.

The amount of food should be diminished one half and milk should be made up of half water that has been boiled. If cow's milk must be used see that it is clean, pasteurized milk that has been prepared according to your physician's directions.

The baby should have plenty of fresh air, preferably the open air, and on the shady side of the street. Keep flies and mosquitoes away from it. If unable to get out into the street the porch is the next best place. See that the baby does not become overheated.

But very little clothing is needed on the baby during the hot weather. A cotton undershirt will serve as a covering. Have the arms and legs uncovered and free. Let the baby lie on a clean, firm surface and not on a pillow or a heap of clothes. It is not necessary to wrap the baby in the diaper —

the baby will be just as clean and more comfortable if allowed to simply lie on the diaper.

Bathe the baby every day, besides giving it a couple of sponge baths with cool water to which has been added baking soda. For drinking water plenty of cool, boiled water is the best. Ice water should never be given the baby.

VEAL CASES IN COURT.

During April, 1916, several complaints against wholesale dealers in meats were presented to the Municipal Court for violation of the Acts of 1908, chapter 329. This Act is the so-called "bob veal" law, which makes it unlawful to sell, offer or expose for sale or to deliver for use as food the carcass or any part or product thereof of any calf weighing less than forty pounds when dressed with head, feet, hide and entrails removed. The trial of these cases consumed three days. The defendants were discharged on all counts, the court ruling that the words "when dressed" in the law referred only to the time of slaughter; also ruled that the entrails meant only the digestive tract, thereby allowing the "pluck" to be weighed in with the carcass; the court also ruled that the word "feet" in the law meant only the hoofs. In the opinion of the Corporation Counsel this decision of the lower court renders this law nugatory, and the Health Commissioner will not go forward with any more cases until such time as the Legislature re-drafts the law.

SCORE CARDS FOR PLACES WHERE FOOD IS SOLD.

Since the first of November, 1915, the inspectors of the Food Division of the Health Department have been inspecting the places where food is manufactured, stored, prepared and sold, using a score card devised by this department. These scores are made out in triplicate, one copy being left at the restaurant or shop, one copy being retained by the inspector making the score and the original being turned into the office for the department files. The department has requested that the shopkeepers post in a conspicuous place these scores so that a patron may know how these stores stand in the judgment of the Health Department. The department also requests the public to ask the proprietors of these stores and shops to show their scores. The restaurants as a general rule have been found to be in a fairly satisfactory condition, the quality of food handled being very good, but in some instances it has been found

that dirty methods of preparing food are allowed in the kitchen. These defects are being speedily remedied, but where no improvement is made the parties offending will be brought into court. The department has had more trouble with bakeries than with any other place where food is prepared. In the so-called basement bakeries the worst conditions have been found and in the opinion of the department a law should be enacted to prohibit the use of basements for bakeries.

TETANUS.

During the coming holidays much attention is given to celebrations which involve the extensive use of explosives in one form or another, the careless use of which often results in many cases of tetanus.

Tetanus coming from such sources as these has happily been reduced to a minimum on account of the quick care and treatment accorded those who are liable to infection. The great thing to remember in cases of blank cartridge wounds is to at once call a physician. Time is the important element in tetanus.

The wadding from a blank cartridge when driven into a wound may carry with it the tetanus baccilli and the absorption of the poisonous products given off during the growth of these organisms produces the disease. The bacilli thrive only in absence of oxygen.

The first precaution is the proper surgical treatment of the wound by the physician since a blank cartridge wound is particularly dangerous. The physician enlarges the wound so that all foreign material may be removed and the cut cleansed, disinfected and dressed in such a manner as to prevent the growth of the organism.

The second precaution is the use of anti-tetanic serum. This is of great value as a prophylactic if it is administered promptly when a wound appears suspicious instead of waiting for the appearance of symptoms. Prevention is better than cure and far less difficult in cases of this kind.

The recognition of the great possibilities of preventive treatment has greatly reduced the number of cases of tetanus reported from wounds caused by blank cartridges.

A highly successful campaign waged each year against the reckless and careless use of firearms, cannon crackers, etc., especially before the Fourth of July, has also been instrumental in reducing the number of victims.

Fifteen years ago out of every four cases of cartridge wounds one case of tetanus developed while now there is but one case to every forty of such injuries. In 1903 in this country as a result of Fourth of July celebrations there were 417 victims of tetanus, but there has been a decided decrease each year until in 1914 the number was only three.

RECENT COURT DECISIONS.

The Harrison Anti-Narcotic Law.

The United States Supreme Court, on June 5, 1916, affirmed the decision of the United States District Court in United States *v.* Jin Fuey Moy (PUBLIC HEALTH REPORTS January 21, 1916, page 143).

The court decided that the words "any person not registered" as used in section 8 of the law "can not be taken to mean any person in the United States, but must be taken to refer to the class with which the statute undertakes to deal — the persons who are required to register by section 1."

Under this decision, a person who does not import, produce, manufacture, deal in, dispense, sell, or distribute the drugs cannot be convicted of violating the Harrison law merely because he has possession of some of the drugs.

Physical Examination of School Children.

The Supreme Court of South Dakota has decided that the regulation requiring that each child seeking admission into the schools must furnish a physical record card signed by a physician, either the family physician or school physician, was reasonable and valid and did not lawfully bar any pupil from the schools.

Garbage Reduction Plant Not a Nuisance.

The Supreme Court of Ohio decides that a legally authorized and properly conducted garbage reduction plant is not a public nuisance and could not be successfully prosecuted as one. Damages might be recovered, however, the court intimated, if the reduction was done in such a way as to cause unnecessary disturbance or annoyance to persons in the vicinity.

Rat Proofing Ordinances Held Valid.

The Supreme Court of Louisiana has upheld the rat proofing ordinance of New Orleans which makes it unlawful to construct or maintain any structure which is not rat proofed as provided by the ordinance.

Occupational Diseases and Compensation Laws.

The Supreme Court of Ohio has decided that a workman who was suffering from lead poisoning contracted in the course of his employment was not entitled to compensation under the Ohio law of 1911 which provided compensation to employees "injured in the course of employment." The court took the view that the Legislature in adopting the law did not intend to cover injuries caused by disease.

Enforcement of Order of Board of Health.

The Court of Appeals of New York has decided that a board of health cannot prescribe the penalty for violating its order after the order has been disobeyed. When the order was adopted no penalty had been decided upon by the board of health.

Use of Second-hand Material in Mattresses.

The Supreme Court of Illinois decided that a law prohibiting the use of second-hand mattresses, bed comforters and quilts is void. The court claimed that the desired results could be obtained by sterilization, which might properly be insisted upon by the board of health.

TREATMENT OF TUBERCULOSIS.

Many factors enter into a consideration of the proper treatment of tuberculosis and a review of the writings of authorities on the treatment of this disease makes it evident that, as a noted writer has tersely put it, "It is not so much *where* the consumptive lives as *how* he lives that is of the most importance. . . . A life spent entirely out of doors, in any kind of weather, good and abundant food and rest and discipline are the all-important factors to utilize in bringing about a cure."

TUBERCULOSIS.

The following tables show the distribution of the 715 cases of tuberculosis reported in Boston during the first four months of this year by wards, age, sex, color, mother nativity, living conditions and whether treated in the hospital or at home. In many instances information was impossible to obtain, but it is hoped that when the tables are published again the figures will be complete.

CASES REPORTED.

Pulmonary Tuberculosis, by * Wards, January to April, 1916 (Inclusive).

Wards.	January.	February.	March.	April.	Total.
1	1	6	4	1	12
2	4	12	9	12	37
3	5	4	2	5	16
4	3	7	6	7	23
5	30	28	28	32	118
6	20	15	12	16	63
7	5	14	6	11	36
8	5	11	9	8	33
9	8	13	6	14	41
10	3	8	4	5	20
11	1	12	10	6	29
12	8	16	8	8	40
13	14	20	12	16	62
14	3	3	2	10	18
15	6	4	9	8	27
16	3	2	3	2	10
17	4	4	6	3	17
18	2	4	1	6	13
19	1	6	5	2	14
20	3	2	4	4	13
21	3	3	3	5	14
22	.....	5	1	2	8
23	2	6	5	1	14
24	1	5	3	6	15
25	4	.....	.....	2	6
26	2	7	3	2	14
Unknown	1	.....	1	.....	2
Totals	142	217	162	194	715

* New ward lines.

The number of feeble-minded in the United States has been estimated as 150,000. In institutions 47.2 per cent were under twenty years of age and 76.4 per cent were under thirty.

Cases by Sex, Condition, Color and Mother Nativity.

	January.	February.	March.	April.	Totals.
Sex:					
Male	96	138	99	122	455
Female	46	74	59	72	251
Unknown	.....	5	4	.....	9
Totals	142	217	162	194	715
Conjugal Condition:					
Single	59	96	68	95	318
Married	57	75	65	62	259
Widowed	1	13	9	9	32
Divorced	4	1	1	1	7
Unknown	21	32	19	27	99
Totals	142	217	162	194	715
Color:					
White	124	196	148	175	643
Chinese and Black	9	9	7	12	37
Unknown	9	12	7	7	35
Totals	142	217	162	194	715
Mother Nativity:					
Boston	31	42	23	31	127
United States	19	30	20	25	94
Ireland	25	57	41	57	180
England, Scotland and Wales	8	7	4	9	28
Germany	3	3	5	3	14
Canada	10	17	11	17	55
Sweden	2	3	1	3	9
Italy	6	15	15	14	50
France	.....	.....	1	1	2
Russia	19	22	20	15	76
Other Countries	11	15	12	13	51
Unknown	8	6	9	6	29
Totals	142	217	162	194	715

Of the 715 cases reported thus far this year, 255 were born in Boston.

Cases by Kind of House, Sanitation, Sleeping Arrangements, Sputum, Reports and Hospital.

	January.	February.	March.	April.	Totals.
Kind of House:					
Single	1	4	6	7	18
Two Apartment	7	8	12	9	36
Three Apartment	19	32	21	28	100
Four Apartment	1	.....	2	.....	3
Hotel	1	1	1	1	4
Lodging Houses	17	22	14	21	74
Institution	1	1	2	1	5
Basement	6	5	2	4	17
Not Given	89	144	102	123	458
Totals	142	217	162	194	715
Sanitation:					
Excellent	7	31	21	22	81
Good	39	60	37	59	195
Fair	49	65	59	55	228
Poor	11	12	12	15	50
Very Poor	1	.....	1	.....	2
Not Given	35	49	32	43	159
Totals	142	217	162	194	715
Separate Room:					
Yes	80	127	86	120	413
No	32	38	44	40	154
Not Given	30	52	32	34	148
Totals	142	217	162	194	715
Separate Bed:					
Yes	86	130	101	133	450
No	26	38	31	30	125
Not Given	30	49	30	31	140
Totals	142	217	162	194	715
Sputum:					
Positive	30	58	48	52	188
Negative	10	17	13	19	59
Not Given	102	142	101	123	468
Totals	142	217	162	194	715
Hospital:					
Yes	62	89	66	107	324
No	80	128	96	87	391
Totals	142	217	162	194	715

By Age Periods, January to April, 1916 (Inclusive).

Age Periods.	Under 5 Years.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and under 45.	45 and under 50.	50 and under 55.	55 and under 60.	60 and under 65.	65 and under 70.	70 and under 75.	75 and under 80.	80 and under 85.	85 and under 90.	90 and under 95.	95 and under 100.	Totals.	Grand Total.
Male.....	6	9	14	23	64	65	60	59	45	38	29	18	13	5	.....	2	.....	.....	.....	.....	450	715
Female.....	2	6	8	42	43	42	35	27	24	12	7	6	5	2	1	2	1	.....	.....	.....	265	

POPULATION, BIRTHS AND DEATHS UNDER 1 YEAR BY WARDS AND MONTHS, 1916, WITH AREA OF BOSTON IN LAND, FLATS AND WATER.

Wards.	Population.	January.		February.		March.		Totals.		Area in Acres.			
		Births.	Deaths Under 1 year.	Births.	Deaths Under 1 Year.	Births.	Deaths Under 1 Year.	Births.	Deaths Under 1 Year.	Land.	Flats.	Water.	Totals.
1	23,776	39	8	39	4	40	5	118	17	1,065	428	159	1,652
2	41,904	116	16	106	13	141	13	363	42	480	208	.....	688
3	21,016	39	6	44	4	39	3	122	13	422	87	60	569
4	18,585	25	7	36	4	35	6	96	17	418	1	64	483
5	77,573	223	16	213	18	260	27	696	61	750	.....	100	850
6	37,250	68	8	59	3	88	6	215	17	316	.....	90	406
7	35,084	42	9	23	6	48	6	113	21	500	.....	16	516
8	38,317	50	4	45	4	53	7	148	15	782	.....	226	1,008
9	33,996	74	5	72	10	79	3	225	18	1,006	363	75	1,444
10	25,741	47	7	45	3	64	3	156	13	328	84	.....	412
11	26,234	55	7	49	7	48	5	152	19	863	332	.....	1,195
12	29,416	70	6	58	6	65	4	193	16	440	.....	.....	440
13	30,533	54	10	68	8	67	7	189	25	340	.....	.....	340
14	27,799	52	4	47	5	50	2	149	11	689	.....	12	701
15	26,225	49	3	52	5	58	5	159	13	486	.....	.....	486
16	25,404	41	....	37	6	50	3	128	9	474	.....	.....	474
17	25,853	46	11	59	9	56	14	161	34	540	145	.....	685
18	25,877	30	4	40	5	48	4	118	13	485	.....	.....	485
19	22,748	35	5	31	8	40	6	106	19	553	.....	.....	553
20	22,958	35	2	38	4	37	1	110	77	1,342	129	44	1,515
21	26,499	46	9	43	1	40	2	129	12	1,787	.....	56	1,843
22	23,812	48	4	42	8	50	7	140	19	2,535	.....	.....	2,535
23	21,442	30	5	40	....	48	2	118	7	4,743	.....	57	4,800
24	22,615	53	4	32	7	49	7	154	18	3,668	.....	62	3,730
25	16,401	30	....	33	2	28	....	91	2	1,357	.....	34	1,391
26	18,381	35	5	36	3	32	3	103	11	1,383	.....	82	1,465
Nonresidents	.....	108	16	127	22	153	26	388	64				
Residence unknown	.....	28	2	31	....	24	1	83	3				
Ward not given	.....	.....	....	1	....	4	....	5					
Totals	.....	1,568	183	1,566	175	1,794	178	4,928	536	27,752	1,777	1,137	30,666

REPORT OF THE HEALTH UNIT FOR THE MONTH OF MAY, 1916.

Visits by medical inspector:	
Contagious	90
Tuberculosis	38
Ophthalmia	8
Miscellaneous	17
Total	153
Cases visited by nurses:	
Medical	140
Babies	675
Total	815
Defective sanitary conditions found in tenement houses,	89
District physicians' calls	101

Instructive District Nursing Association.

Visits made by nurses	757

Associated and Hebrew Federated Charities.

Cases investigated and assisted	17

SUMMARY OF VITAL STATISTICS.

There were 1,310 deaths reported in the five weeks ending June 3, against 1,201 in the corresponding period last year, and a death rate of 17.97 against 16.73.

Reported deaths of nonresidents numbered 183 against 188 last year.

Of deaths from reportable diseases the principal decreases were:

Diphtheria	15
Scarlet fever	11

and the principal increases were:

Tuberculosis (all forms)	21
Measles	14
Whooping cough	4

Other important differences were as follows:

Decreases:	
"Other causes"	17
Increases:	
Pneumonia	38
Organic diseases of heart, endocarditis, pericarditis and nephritis	1

There were 7 more deaths under 1 year, 14 more under 5 years, and 14 more under 60.

MORTALITY FOR THE FIVE WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	1,201	1,310
Nonresidents	188	183
Rate	16.73	17.97
Corrected rate, nonresidents deducted	14.12	15.46
Deaths under 1 year	193	200
Deaths under 5 years	284	298
Deaths over 60 years	371	385

CAUSES OF DEATH.

Erysipelas	6	12
Cerebro-spinal meningitis	1	3
Diphtheria	33	18
Measles	6	20
Scarlet fever	21	10
Tetanus	—	2
Pulmonary tuberculosis	102	123
Other forms of tuberculosis	20	20
Whooping cough	8	12
Accidental and violent	84	88
Heart disease, endocarditis, pericarditis and nephritis	216	277
Bronchitis	6	10
Cancer	98	99
Diarrhea and enteritis (under 2 years)	19	23
Diarrhea and enteritis (2 years and over)	6	10
Meningitis and encephalitis	7	7
Old age	4	1
Pneumonia	128	166
Premature birth	34	34
Puerperal diseases	18	15
Rheumatism	6	3
Other causes	377	355

MORTALITY FOR TWENTY-TWO WEEKS FROM JANUARY 1 TO JUNE 3.

	1915.	1916.
Total deaths	5,595	5,994
Deaths under one year	839	875
Nonresident deaths	759	781

Heart disease, pneumonia and pulmonary tuberculosis, the principal causes of death, constituted almost 30 per cent of the total number of deaths in this city last year.

The following is a Summary of the Work Done by the Different Divisions in the Department for the Five Weeks Ending June 3, 1916, and for the Corresponding Period in 1915:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	228	368	18	33	36	28	6	5
Scarlet fever	217	527	10	21	35	55	4	7
Measles	1,204	1,036	20	6	4	27	0	0
Typhoid fever	8	20	1	1	0	0	0	0
Whooping cough	183	238	12	8	2	1	1	0
Tuberculosis (all forms)	284	319	123	102	31	7	12	5

CENTRAL DIVISION.

Legal notices authorized	1,353
Forcible removals ordered	3
Prosecutions authorized	12
Stable hearings	2
Hearing	1
Lying-in hospitals certified	2
Premises ordered vacated	6
Miscellaneous orders	5
Culture station assigned	1
Prosecution	1
Fines	$3

Licenses — Permits.

Milk	2,450
Manicure — Massage	218
Hens	302
Vehicles inspected and approved	638
Licenses to peddle fruit and vegetables	215
Numbers assigned	280
Dump	3
Licenses renewed to remove bones, grease, etc.	48
Sundry licenses	1
Place assigned	1
Stable permit refused	1
Grease licenses	5
Manure licenses	2

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	3,568
Antitoxin given	38
Deaths investigated	13
Cases brought to Boston for treatment	101
Vaccinations	908
Vaccination certificates	286
Patients forcibly removed to hospitals	3
Antityphoid vaccine	20

Public Health Nursing.

Communicable disease visits	4,529
Prenatal visits	16
Postnatal visits	992
Number of revisits	6,997
Total visits by nurses	12,534

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	1,464
Tuberculosis	609
Typhoid	121
Syphilis	249
Gonorrhea	342
Other examinations *	212
Bacteriological milk examinations	768

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	350
Calves inspected	2,115
Swine inspected	5,395
Animals condemned, whole	23
Parts condemned	361

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	1,246
Bacteriological examinations of milk	748
Bacteriological examinations of ice cream	29
Bacteriological examination of water	1
Chemical examinations of vinegar	143
Chemical examinations of butter and cheese	60
Chemical examinations of ice cream	32
Miscellaneous examinations	10
Number of court cases	30
Fines	$800

*Examination of rats, 121; Malaria, 18; Ophthalmia, 42; Vincent's angina, 1; Genito-Urinary Tuberculosis, 13; K. L. virulence, 1; organisms, 3; Paratyphoids, 12.

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	15 pounds	Biscuits	10 pkgs.
Beef	52 pounds	Popcorn	10 pkgs.
Pork	190 pounds	Lemons	5 dozen
Veal (tainted)	37 pounds	Rice	6 pounds
Fish	35 pounds	Figs	125 pounds
Salami	34 pounds	Eggs	103 dozen
Sausages	194 pounds	Butter	8 pounds
Lobster	150 pounds	Cheese	245 pounds
Miscellaneous:		Strawberries	360 quarts
Tomatoes	28 pounds	Cranberries	10 pounds
Tomatoes (pulp)	13 cases	Vinegar	14 pints
Raspberry preserves	53 cans	Stores examined	2,085
Dried raspberries	125 pounds	Prosecutions	4
Extracts	16 quarts	Fines	$25
Sugar	26 pounds		

SANITARY INSPECTION.

New reports	3,447
New tenement house reports	86
Legal notices recommended	1,353
Reinspections	6,637
Nuisances reported	7,533
Complaints investigated	1,447
Number of court cases	7
Fines	$106

MONTHLY METEOROLOGICAL SUMMARY, MAY.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.89; highest, 30.32; date, 14; lowest, 29.19; date, 17.

TEMPERATURE.

Highest, 85; date, 25; lowest, 44; date, 1; greatest daily range, 28; date, 25; least daily range, 3; date, 16; normal for month, 56.6°.

PRECIPITATION.

Total this month, 2.83; snowfall, 0.0; greatest precipitation in 24 hours, 2.03; date, 16–17; snow on the ground at end of month, 0.0; normal for this month, 3.51.

WIND.

Prevailing direction, southwest; total movement, 7,625 miles; average hourly velocity, 10.2; maximum velocity (for five minutes), 38 miles per hour, from west, on 12th.

WEATHER.

Number of days clear, 8; partly cloudy, 13; cloudy, 10; on which .01 inch, or more of precipitation occurred, 11.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 1, 10, 22, 27; lunar, 0; hail, 0; sleet, 0; fog, 15.16; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

1557

JUNE, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

JUL 28 1916

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

	Population 748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.	
Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, JUNE, 1916. NO. 6

"Public health is the foundation on which rests the happiness of the people."

ANTERIOR POLIOMYELITIS.

(Infantile Paralysis.)

The present outbreak of anterior poliomyelitis, or infantile paralysis, in New York City, where there have been more than 2,500 cases and 500 deaths, has brought this disease prominently before the public. Fortunately Boston has no cases of this disease at the present time and thus far this year but 3 cases have been reported, 2 of which were nonresidents.

Infantile paralysis is an acute infectious disease and is to be feared not only on account of the great danger to life but also because in many cases where patients survive it leaves them disabled for life. Permanent paralysis or greatly impaired functions of the arms and legs are the most common results.

This disease attacks people of all ages, but the greatest incidence is always among children, especially those in the first half decade of life. Children under five years of age furnish usually from 50 to 90 per cent of the cases of poliomyelitis. In some epidemics the disease is almost as prevalent in children between the ages of five and fifteen years as in those under five, but adults, constituting usually about half of the population, seldom furnish more than 10 per cent of the cases and usually this percentage is smaller. In children under five the greatest number of cases and deaths occur in those between one and two years of age.

Strong and healthy children are attacked with as much frequency as weak children and the disease does not confine itself to either the rich or the poor.

Anterior poliomyelitis has been epidemic on both eastern and

western hemispheres, in torrid, temperate and frigid zones, in thinly settled, remote country districts as well as the thickly congested sections of large cities, and contrary to the usual course of epidemics it does not necessarily follow the direct routes of travel. During the last epidemic in New York it spread to Northern New England but it did not attack the people in the large cities to the west and south of New York, reached by countless thousands daily and by the most direct routes of travel. It has been found that the spread of this disease is rapid but is irregular in its course and in country districts where the population is sparse, and oftentimes separated by distances, it attacks a greater percentage of the population than in the congested sections of cities. Poliomyelitis usually makes its advent in May and continues until August. Boston has been unusually clear of this disease this year.

In epidemics the mortality reaches about 25 per cent but the percentage of deaths has been very low among the comparatively few cases in this city. The following figures give the number of cases and deaths in Boston since 1911:

Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1911	32	4	1914	23	7
1912	27	1	1915	17	3
1913	41	5	1916 (6½ months)	3	0

The virus has been found in the tissues and secretions of persons who have died from poliomyelitis and in the secretions of persons acutely ill with the disease, and there are three sources of infection: 1. From those ill with the disease. 2. From those convalescing. 3. From "passive carriers."

The virus in the body exists in the discharges from the nose and throat and also in the intestinal discharges of those who are ill and is received into the body through the mucous membrane of the nose and throat. Therefore, kissing, coughing and sneezing may carry the secretions of nose and throat from the sick to the well. Infected nasal discharges are probably the most common vehicle of spreading the infection. Persons harboring the disease germs but showing no symptoms of the disease may be the cause of its spreading.

Though much experimenting has been done and surveys made, nothing definite has yet been established regarding the source of this disease, but it is undoubtedly due to a specific infectious agent, but the organism of the disease has not yet been isolated. Active work has been done along this line in all epidemics of anterior poliomyelitis, but no real conclusions have

been arrived at and although the stable fly was at one time thought by some authorities to be the carrier of the germ this observation is open to serious question.

With these facts before us it is the earnest hope of the officials of the Health Department that epidemic infantile paralysis does not strike here. However, preparations have been made and the department is ready for any emergency.

The Health Department issues the following circular of recommendations, with the hope that those who are not familiar with the proper means to be used in cases of poliomyelitis to prevent the spread of the disease may be benefited thereby:

Acute poliomyelitis, or infantile paralysis, is an infectious and communicable disease. While poliomyelitis is admittedly not as acutely contagious as scarlet fever or measles, its serious nature amply justifies energetic and thorough measures of control.

The disease is eminently one of childhood, but adults are also frequently affected, no age being immune.

Children in the family must not be allowed to attend school until they have received a certificate from the Health Department.

The room used by the patient should be as nearly free from furniture as possible. Carpets and hangings should be removed before the patient is placed in the room. Toys and books used by the sick person should be thoroughly disinfected or destroyed after recovery or death. The sick room should be well aired several times daily.

When practicable, one attendant should take entire care of patient, and no one else beside the physician should be allowed to enter the room. The attendant should have no communication with the rest of the family. Visitors must not be admitted to the apartment as long as the case is quarantined. The room occupied by the patient should be screened. Cats, dogs and other animals should be excluded.

Discharges from the nose and mouth of the patient should be received on a handkerchief or cloths which should at once be burned or immersed in a two per cent solution of carbolic acid. This solution is prepared by dissolving three ounces of pure carbolic acid in one gallon of hot water.

All cloths, bed linen and personal clothing, which have come in contact in any way with the sick person, should immediately be immersed in the carbolic solution before removal from the room. They should be soaked for two or three hours and may then be removed from the room and boiled in water or soapsuds for one quarter of an hour.

Surfaces of any kind soiled with the discharges should be immediately washed with the carbolic solution.

The death rate from typhoid fever in the United States has been cut in half since 1900.

THE VENEREAL DISEASE PROBLEM.

The question of establishing some degree of control over the dissemination of venereal diseases is the most serious and perplexing of present public health problems. All who have made a study of this question agree upon certain points; there is, for instance, a common recognition of the fact that these diseases are widely prevalent, that they cause a tremendous amount of misery and suffering and that they are innocently contracted by a great many people, but when it is proposed to introduce those measures which have proved effective in diminishing the ravages of other contagions there is an immediate protest and many reasons are urged why these diseases and those afflicted with them should be exempt from public health control.

The first step in the control of any communicable disease in a community is the requirement that its presence whenever found shall be immediately reported to the Health Department, in order that quarantine may be enforced, instruction given, or those measures taken which may be necessary in order to prevent the spread of the infection.

The authority in Massachusetts for defining what diseases are communicable rests with the State Department of Health and the law upon the subject of reporting these diseases to local health departments is very strict, physicians and householders being liable to a fine of $50 to $200 for failure to make such report in writing.

With the exception of gonorrheal ophthalmia in young infants, syphilis and gonorrhea have not as yet been designated among the reportable diseases in this state.

The New York City Health Department now requires the reporting of these diseases and if the patient is treated in a hospital dispensary or other institution his name and address are required, otherwise the report may be made by number. The records are not public and are open only to those immediately in charge of them in the Health Department.

About a year ago this department sent to all the physicians of the city, about 1,800 in number, a reply post card requesting an answer to the following questions:

1. How many cases of syphilis in any stage are under your care?

2. How many cases of gonorrhea in any stage are under your care?

3. Do you favor making syphilis and gonorrhea reportable diseases either by name or by number?

Eight hundred and eighty-five answers were received and the writers collectively claimed to be treating 3,987 cases of syphilis and 4,068 cases of gonorrhea. If these returns are accurate, and we may assume even half as many cases as being treated by the physicians who did not answer, it is evident that the prevalence of these diseases is alarming.

Six hundred and eighty-one, or 77 per cent of those from whom replies were received, favored the compulsory reporting of these cases; 88 believed they should be reported by name, 287 by number and 306 simply answered "yes" to the question, stating no preference; 84 did not answer the question at all. One hundred and twenty, or $13\frac{1}{2}$ per cent, answered "no."

On the face of these returns the medical profession of the city is overwhelmingly in favor of compulsory reports to the Health Department, although the great majority favor the adoption of some method of report by which the identity of the patient may be concealed.

Among those opposed to reporting these cases are several of the best known specialists. Many of the physicians who were opposed added brief remarks, giving reasons for their answers, and these comments are well worth consideration.

It was urged by them that the compulsory reporting of cases would tend to keep those afflicted from seeking medical advice; that the disease would be even more concealed than at present and that proper treatment would be prevented; that they would flock to "fakirs," "quacks," "advertising doctors," "apothecaries" and "drug clerks," or would depend upon advertised or patent medicines and that "anything tending towards publicity would prevent the patient from seeking advice and greatly favor the spread of the disease."

Others stated that "mistakes in diagnosis are too easy and too serious," that there is "too much legislation to regulate the practice of medicine now," that this would be "an absolute wrong and outrage to confiding patients" and "would expose the patient to persecution and blackmail."

Several advised the control of prostitution by segregation, examination and licensing and the quarantine of those infected.

It was suggested that much might be done through "the distribution of free literature," the "establishing of a municipal clinic" and free Wassermann tests.

Those who favored reporting these cases to the Health Department by name made suggestions for the privacy of the records thus obtained, such as "reporting should be in sealed envelopes and confidential," "if privacy can be maintained," "if not

accessible to laymen," "as privileged communication, Board to have power of investigation, instruction, etc.," "for use of Health Department only," and one pointed to another difficulty by the assertion that he "does not see how it can be enforced."

Another point made in favor of reporting by name is that reports by numbers would cause serious mistakes in statistics.

Thirty-two per cent of all the answers received favored reporting by numbers, some saying this should be the preliminary step and that the reporting of names can come later. Several suggested that free Wassermann tests would be helpful in the control of syphilis. One favored such reports only "after suitable public measures were taken for their care during transmissible stages" and another, "provided vaccine and salvarsan will be provided for treatment."

Several thought the diseases should be reported only in the acute or infectious stages or where the patient is unfaithful to treatment.

Fears were expressed by some that if reports by name were required the records could not be kept secretly; patients would give fictitious names and would resort to self-treatment, quackery or drug store treatment and the diseases would be increased.

There seems to be a widespread belief that many of these cases are treated by druggists, there being frequent allusions to this phase of the subject, and the druggists are often classed with quacks, charlatans, etc., as being equally guilty in the mistreatment and consequent spread of these diseases.

The wish is again expressed that literature be furnished physicians to distribute; some favor reporting by name if the records are confidential; one suggests names should be reported when the patient's occupation endangers others, such as cooks or nurse girls.

Of those who answered the third question (Do you favor making syphilis and gonorrhea reportable diseases either by name or by number?) with a "yes," probably many felt like the one who added "name or number if only reported."

Many qualify this answer with various conditions, such as "would not report old cases after the contagious stage is passed."

"Provided the Health Department assumes the responsibility for the accuracy of the diagnosis."

"If the diagnosis can be confirmed by laboratory findings."

"If confidential and not open to the public." One answers, "Yes," with more qualifications to this answer than space affords.

Here again the reporting only of acute cases or cases in the infectious stages is repeatedly mentioned as desirable, as is also

the fear that attempts to control the disease will increase the number who will resort to "quacks" and "drug stores" and the fear is expressed that unless drug store prescribing is suppressed the measure will be nullified.

Directions for the care of the disease are requested; several favor isolation as in diphtheria or smallpox and one would make the quarantine for syphilis as severe as that for leprosy.

The Boston Health Department began in 1905 to make examinations of smears from the eyes of babies for the presence of gonococci and in 1908 extended this service to include any smears for the same organism and to date has made over 15,000 of these tests.

Although for the urethral smears the name of the patient is not required, it is frequently given, together with the address, by the physician who requests the examination.

This may be considered an indication of the willingness of many physicians to report these cases to the Health Department.

Free Wassermann tests were offered by the Health Department beginning January 1, 1916, and from that time specimens have been submitted as follows:

January, 46; February, 106; March, 171; April, 177; May, 288; June, 206; a total of 934.

Two hundred and six of this number, or 22+ per cent, have been positive; 650, or 69+ per cent, negative; 67, or 7+ per cent, doubtful, and 11, or 1+ per cent, unsatisfactory.

The Health Department freely offers to physicians of the city laboratory tests for both these diseases and believes in so doing an advance is made toward the time when they will come under the same measures of control as the other contagious diseases.

It would seem fair in making a summary of the replies to its post card queries to say that there is a preponderance of opinion in favor of measures for establishing some degree of control over syphilis and gonorrhea, that for the present at least educational methods should predominate, and that some method of reporting should be adopted in order that the prevalence of the disease may be known even if it is necessary to conceal the identity of the sufferer.

DO YOU KNOW THAT

It's worry, not work, which shortens life?

A cold bath every morning is the best complexion remedy?

Poor health is expensive?

SEA AIR OR COUNTRY AIR IN THE TREATMENT OF TUBERCULOSIS. WHICH IS BETTER?

"There is no single climate applicable to all cases of consumption. The peculiarities of temperament, the ever-varying combinations of physical signs, the associated disturbance of circulation, digestion and elimination, and the financial status furnish a combination that must be adjudged *in relation to the known physiologic effect of the various climates and the therapeutic action to be desired.* . . . Many consumptives exhibiting similar physical signs and subjective symptoms differ essentially in their constitutional vigor, while some present certain important complications. Thus, among patients apparently in the same class, marked differences exist in the indications for climatic selection. Often the decision with reference to radically diverse types of climate should be influenced by the age of the pulmonary invalid, the previous habits, environment, race, temperamental peculiarities and complications. Climates, which for many individuals exert a general stimulating and tonic action, are found to produce pronounced irritability or depression in others. *Per contra*, certain regions noted for their enervating and relaxing influence upon the majority of pulmonary invalids are found to exercise a soothing and bracing effect upon some with disturbed nervous equilibrium. Thus it follows that the selection of climate for those suffering from pulmonary tuberculosis should be based primarily upon an intelligent conception of the *constitutional requirements* of the individual. . . . While in general the most favorable climate for consumption is that exhibiting attributes of dryness, sunshine, moderate altitude, diminished atmospheric pressure and variability, this combination in its physiologic demands upon the organism is not suited to the need of *all* patients. . . . Pulmonary hemorrhage, popularly supposed to furnish a contraindication for residence in elevated regions is less likely to ensue in such places than at sea-level, provided departure from home is delayed until a brief interval has elapsed after the hemorrhage has ceased." (Bonney.)

Regarding the kind of air best suited to a tuberculous patient, authorities differ; further, air that is beneficial for certain forms of tuberculosis is contraindicated in others. Bonney says, when considering the treatment of glandular tuberculosis, that while the principle of open-air treatment, exclusive of surgical measures, is thoroughly recognized, there is con-

siderable difference of opinion as to the merits of the sea, inland or mountain air. He refers to a number of authorities who believe in the efficacy of *sea air* for children afflicted with tuberculous glands or bones. He cites the large number of seaside hospitals for victims of so-called surgical tuberculosis that are maintained in nearly all European countries and in South America. Nearly all European seaside institutions, he adds, exclude patients suffering from pulmonary tuberculosis. He also cites the beneficial results attained at the Sea Breeze Station, near New York, in cases of glandular tuberculosis, but adds that unusual results in surgical tuberculosis have been obtained in the Adirondacks and other eastern inland resorts, quoting the opinions of other medical men who believe that just as good, and even better results can be secured in moderately high altitudes with a dry climate as at the seashore. Bonney adds:

"It is reasonable to believe that a rarefied, stimulating atmosphere, with many hours of sunshine, should be more beneficial for individuals with diminished resistance than a climate teeming with fog, and frequently saturated with moisture, thus permitting less opportunity for out-of-door recreation."

W. J. Barlow, in his paper on "Climatic Therapeutics," says that there is still reason and good authority for the belief that tuberculosis exists less in dry regions, either in dry forest places or in elevated and low-lying desert lands, than in settled districts, but adds that climatic therapy must take into account various conditions of the place selected, not only atmospheric but topographic, sociologic, psychic, economic and hygienic conditions — proper and congenial environment.

With reference to coast climates, Barlow says that the coast region gives equable, moist conditions, practically offering the only ocean climate for *selected, individual* cases of tuberculosis, but that the cases should be individualized, just as for all other climates, and gives the following as indications for cases suitable to be sent to the seashore:

"(1) The most favorable are early cases of tuberculosis without fever or marked constitutional symptoms; (2) incipient cases with early and slight hemorrhages; (3) chronic fibroid cases, with or without bronchitis or emphysema; (4) old people with phthisis or a recurrent attack; (5) all cases complicated with cardiac or renal diseases; (6) young children with pulmonary or bone lesions; (7) cases with marked nervous symptoms."

Inland climates are considered by Barlow under the divisions of low, medium and high altitudes; and under *high* altitudes (from 4,000 to 6,000 feet) he gives the following cases as suitable for such places:

"(1) Incipient cases with or without fever; (2) cases beyond the incipient stage, with infiltration or beginning destruction; (3) cases with early hemoptyses or laryngeal cases; (4) cases with pleurisy or with old pleuritic exudate."

Of course, all cases complicated with cardiac or renal disease or diabetes are unfit for *high* altitudes.

The indications for low and medium altitudes or "Desert Climates" are:

"(1) Patients with complicating bronchitis and emphysema, especially those with abundant secretion; (2) albuminuria or kidney lesions; (3) far advanced cases and those of the third stage that seem unfit for any other climate."

AMENDED REGULATIONS CONCERNING THE USE OF THE COMMON DRINKING CUP.

On and after July 1, 1916, it shall be unlawful to provide a common drinking cup:

(*a*) In any public park, street or way.

(*b*) In any building or premises used as a public institution, hotel, theater, public hall or public school, or in any part of any factory, market, office building, or store of any kind which is open to the general public.

(*c*) In any railroad station, railroad car, steam or ferry boat.

The term "common drinking cup" as used in these regulations shall be construed to mean any vessel or utensil used for conveying water to the mouth available for common use by the public.

ACTS OF 1910, CHAPTER 428.

SECTION 1. In order to prevent the spread of communicable diseases, the state board of health is hereby authorized to prohibit in such public places, vehicles or buildings as it may designate the providing of a common drinking cup, and the board may establish rules and regulations for this purpose.

SECT. 2. Whoever violates the provisions of this act, or any rule or regulation of the state board of health made under authority hereof shall be deemed guilty of a misdemeanor and be liable to a fine not exceeding twenty-five dollars for each offence.

SECT. 3. All acts and parts of acts inconsistent herewith are hereby repealed.

It is estimated that the average manure pile will breed 900,000 flies per ton.

SOME THINGS TO REMEMBER.

It is the baby that survives that counts.

For most infants cream is less digestible than milk.

Rats, flies and mosquitoes are very common, yet expensive and dangerous.

Be careful of the place you are about to choose for your summer vacation.

Clean water, clean food, clean houses and clean air make healthy citizens.

Summer time admits of enough fresh air and sunshine so that each person should get his share.

Now that the vacation period is at hand those contemplating going away should avail themselves of anti-typhoid inoculation.

A certain amount of sunlight is necessary to stimulate the system and maintain an equilibrium, but an excessive amount is as harmful as an excess of any other stimulant.

The defective child unless corrected becomes the defective man and where correction is possible during early life it becomes well nigh impossible in later life.

It is during the summer months that the great increase in deaths in children occurs. A little more care and watchfulness over the baby during these months will tide it over the most dangerous period of the year.

Keep your premises clean, your garbage pail covered, your doors and windows screened and your foodstuffs unexposed and flies will give you but little bother.

HEAT AND INFANT MORTALITY.

The following extracts in regard to heat and infant mortality, from a United States Public Health Service special report, are interesting:

Hot summers produce an abnormally high infant death rate and cool summers the reverse. The influence of heat upon the mortality of infants in the first part of the summer is apparently immediate.

In the cool summer of 1910 Rietschel made observations with maximum and minimum thermometers and recording thermometers in dwellings in Dresden, in which, for the past five years, a high infant mortality had been recorded.

He states, "I admit frankly that the results astonished me. I had indeed supposed that in such dwellings temperatures of considerable height might prevail in summer, but I had never expected that such excessive temperatures could be maintained, not only daily, but weekly, with an outdoor temperature relatively so low."

It is clear from the foregoing that infants are often obliged to endure, for considerable periods, temperatures which are greatly in excess of those of the external air. Moreover, the temperature is often enhanced by excessive clothing and rubber diapers. It is a too frequent experience to find in crowded tenement homes the busy mother keeping the baby in the kitchen, often near the stove, in order to have it close at hand.

It would naturally be expected that hot days with high humidity would show the greatest increase in infant deaths, but the observations on this point are inconclusive. Days on which great infant mortality has been recorded have, for the most part, been hot and dry.

It is evident that circulation of air is of great assistance in eliminating heat from the body by accelerating evaporation.

If the heat is to be regarded as a direct factor in the causation of summer infant mortality we would expect to find an increased number of deaths of infants in houses and in sections of cities where conditions are unfavorable to the circulation of air. Such, we find, is the case.

In investigations in England along these lines it was noted that when the wind had free access to houses the summer infant mortality was low, while it was high in those cities, or sections of cities, where, from the disposition of the streets or houses, they could not be swept by the prevailing winds in summer.

Effects of Heat in Causing Death.

The greater the summer heat the greater the number of deaths and it must be remembered that it is an indoor and not an outdoor climate to which infants are exposed.

In regard to the feeding during winter weather but little differences in results were noted, no matter what milk was fed. During the summer, however, the differences were striking. The infants fed on breast milk and the best bottled milk showed the best results while these were very bad in the case of infants fed on condensed milk and the cheap store milk.

The investigators also say:

" . . . There seem to be many factors, but a consideration of the facts accumulated indicates that heat is the primary factor and bacteria and their products a secondary one except when the contamination is extreme or the pathogenic organisms present."

And again:

"The depressing effects of great atmospheric heat, *i. e.*, a temperature of 90 degrees Fahrenheit or over were very marked in all infants no matter what their food. Those who were ill were almost invariably made worse and many who were previously well became ill."

They also indicate that proper care was after all the most important factor in keeping the infants well. With proper care some infants were fed all summer on cheap store milk.

One further point which must be noted is that the infants which show the least increase in their death rate in summer are not the breast fed infants, but infants who live in basement and cellars.

While it cannot be denied that milk, so long as it is exposed to contamination by human hands and flies, or is obtained from cows with inflammatory udders or with tuberculosis, must ever be liable to convey pathogenic germs, it would seem in view of the above statements and the many experiments carried on that those who would attribute the bulk of the summer mortality of infants to stale milk take a too one-sided view of the matter and one not borne out by facts.

DO YOU KNOW THAT

Dirty hands spread much disease?

A high-bred dog has a right to have his birth registered — so has a baby?

NOTICE TO USERS OF MILK AND CREAM.

The Health Department wishes to direct the attention of consumers of milk and cream to the fact that the quality of these important food products may be injuriously affected by exposure and lack of oversight, and desires that they receive proper care after delivery. This feature, while important at all periods, is especially so during the warmer months of the year. Help protect supplies of milk and cream by observing the following:

Keep cold at all times; do not leave milk or cream outside to be spoiled by high temperature.

Have bottles covered to protect from contamination by dirt and flies.

After the bottles are emptied, wash them with water and soap or soap powder, and place them where they will be collected by the owners. If the dealers do not take the bottles away promptly, notify the Health Department, Bureau of Milk Inspection.

The bottles should not be allowed to accumulate around households or elsewhere. When this occurs, many of these containers find their way into ash barrels, and eventually to the city dumps, conditions unfavorable to good milk supplies.

It is a violation of law to use milk or cream bottles for anything but milk, cream, skimmed milk or buttermilk. Compliance with this provision means cleaner containers and better service by milkmen.

Milk dealers are requested to bring this notice to the attention of their customers.

MALARIA.

Let us remember that:

1. Malaria is caused only by the malarial parasite.
2. Malaria is transmitted from one person to another only by the bite of the anopheles mosquito.
3. The smallest collection of water may be sufficient for the breeding of the anopheles mosquito.
4. The meal time of the anopheles is between sunset and sunrise.
5. The sexual form of parasite is required for the transmission of malaria — cure every case early and this form will not develop.
6. In a few years malarial fever may be regarded as a matter of history, just as we regard yellow fever now, if only we listen to the precepts of preventive medicine.

HOT WEATHER ADVICE FOR ADULTS AND INFANTS.

Bathe Often.

Dress Lightly.

Avoid Alcohol in All Forms.

Avoid Excesses of All Kinds.

Eat Sparingly, and of but Little Meat.

Encourage Breast Feeding in Infants.

Do not Worry, Overwork, Overheat or Exhaust Yourself in Any Way.

When the Day is Very Hot, Rest as much as Possible in a Cool Place.

Get Plenty of Fresh Air and Sunshine but Avoid Undue Exposure to the Sun.

Drink Plenty of Water, but Abstain from Ice Water, Especially when Very Hot or Exhausted.

AMENDED REGULATIONS CONCERNING THE PROVIDING OF A COMMON TOWEL.

On and after July 1, 1916, it shall be unlawful to provide a common towel:

(*a*) In a lavatory used in connection with any public institution, schoolhouse, hotel, restaurant, theater or public hall, or in any part of any factory, market, office building or store of any kind which is open to the general public.

(*b*) In a lavatory used in connection with any railroad station, railroad car, steam or ferry boat.

The term "common towel" as used in these regulations shall be considered to mean a roller towel or a towel available for use by more than one person without being washed after such use.

Acts of 1912, Chapter 59.

Section 1. In order to prevent the spread of communicable diseases, the state board of health is hereby authorized to prohibit in hotels and in such public places, vehicles or buildings as it may designate the providing of a common towel, and the board may establish rules and regulations for this purpose.

Sect. 2. Whoever violates the provisions of this act, or any rule or regulation of the state board of health made under authority hereof, shall be deemed guilty of a misdemeanor and be liable to a fine not exceeding twenty-five dollars for each offence.

Sect. 3. This act shall take effect on the first day of June, nineteen hundred and twelve.

REPORT OF THE HEALTH UNIT FOR THE MONTH OF JUNE, 1916.

Visits by medical inspector:	
Contagious	64
Tuberculosis	40
Ophthalmia	3
Miscellaneous	4
Total	111
Cases visited by nurses:	
Medical	137
Babies	909
Total	1,046
Defective sanitary conditions found in tenement houses,	94
District physicians' calls	75

Instructive District Nursing Association.

Visits made by nurses	640

Baby Hygiene Association.

Total number of babies cared for	90
New babies admitted	20
Baby re-admitted	1
Conferences held	3
Total conference attendance	110
Home visits by nurses	467

Associated and Hebrew Federated Charities.

Cases investigated and assisted	12

SUMMARY OF VITAL STATISTICS.

There were 848 deaths reported in the four weeks ending July 1, against 792 in the corresponding period last year, and a death rate of 13.79 against 14.54.

Reported deaths of nonresidents numbered 133 against 114 last year.

Of deaths from reportable diseases the principal decreases were:

Tuberculosis (all forms)	16
Diphtheria	4
Scarlet fever	4
Whooping cough	3

and the principal increases were:

Cerebrospinal meningitis	5
Measles	12

Other important differences were as follows:

Decreases:	
Puerperal diseases	12
Diarrhea and enteritis (under 2 years)	5
Increases:	
Pneumonia	7
Organic diseases of heart, endocarditis, pericarditis and nephritis	36
Accidental and violent	17
Pneumonia	7
Erysipelas	7
Other causes	7

There were 20 more deaths under 1 year, 1 more under 5 years, and 39 more over 60.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	792	848
Nonresidents	114	133
Rate	13.79	14.54
Corrected rate, nonresidents deducted	11.81	12.26
Deaths under 1 year	117	137
Deaths under 5 years	189	190
Deaths over 60 years	232	271

CAUSES OF DEATH.

Erysipelas	5	12
Cerebrospinal meningitis	4	9
Measles	16	12
Scarlet fever	7	19
Tetanus	17	3
Pulmonary tuberculosis	86	71
Other forms of tuberculosis	15	14
Whooping cough	7	4
Accidental and violent	52	69
Heart disease, endocarditis, pericarditis and nephritis	160	196
Bronchitis	10	8
Cancer	65	67
Diarrhea and enteritis (under 2 years)	13	8
Diarrhea and enteritis (2 years and over)	3	5
Meningitis and encephalitis	2	7
Old age	2	2
Pneumonia	67	74
Premature birth	26	29
Puerperal diseases	18	6
Rheumatism	4	3
Other causes	219	226

The following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending July 1, 1916:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	213	279	12	16	31	29	5	3
Scarlet fever	95	298	3	7	17	27	1	3
Measles	1,074	742	19	7	8	4	0	0
Typhoid fever	11	25	2	3	0	4	0	2
Whooping cough	119	171	4	7	1	2	0	0
Tuberculosis (all forms)	238	313	85	101	15	11	14	8

CENTRAL DIVISION.

Legal notices authorized	572
Forcible removals ordered	5
Prosecutions authorized	30
Stable hearing	1
Hearings	4
Lying-in hospitals certified	6
Premises ordered vacated	5
Miscellaneous orders	2

Licenses — Permits.

Milk	525
Manicure — Massage	204
Hens	43
Vehicles inspected and approved	792
Licenses to peddle fruit and vegetables	83
Numbers assigned	136
Dump	5
Sundry licenses	1
Stable permit refused	1
Grease licenses	10
Manure license	1

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	2,321
Antitoxin given	50
Deaths investigated	14

Cases brought to Boston for treatment	54
Vaccinations	11
Vaccination certificates	19
Patients forcibly removed to hospitals	5
Antityphoid vaccine	161

Public Health Nursing.

Communicable disease visits	3,357
Prenatal visits	10
Postnatal visits	411
Number of revisits	2,994
Total visits by nurses	5,772

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	1,000
Tuberculosis	302
Typhoid	103
Syphilis	283
Gonorrhea	175
Other examinations *	178
Bacteriological milk examinations	565
Bacteriological water examinations	13
Bacteriological ice examinations	3
Bacteriological ice cream examinations	3

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	324
Calves inspected	406
Swine inspected	3,723
Sheep inspected	1
Animals condemned, whole	6
Parts condemned	306

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	846
Bacteriological examinations of milk	565
Bacteriological examinations of ice cream	13
Bacteriological examination of water	1
Chemical examinations of vinegar	74
Chemical examinations of butter and cheese	8
Chemical examinations of ice cream	14
Number of court cases	68
Fines	$1,025

* Examination of rats, 110; Malaria, 13; Ophthalmia, 41; Genito-Urinary Tuberculosis, 6; ear discharge for T. B., 1; K. L. virulence, 2; organisms, 1; Paratyphoids, 4.

Inspection of Provisions — Articles Condemned.

Meats and Fish:

Poultry	273 pounds
Beef	125 pounds
Pork	190 pounds
Corned beef	104 pounds
Halibut	25 pounds
Hamburg steak	211 pounds
Sausages	2 pounds
Lobster	5,652 pounds
Blood pudding	7 pounds
Pigs' feet	35 pounds
Smoked meat	6½ pounds
Squabs	14 pounds
Lamb	110 pounds
Veal	31 pounds
Dried beef	12 pounds
Sardines	3 cans
Mackerel	7 pounds

Miscellaneous:

Tomatoes	28 pounds
Tomatoes (pulp)	13 cases
Raspberry preserves	53 cans
Dried raspberries	125 pounds
Extracts	16 quarts
Baked beans	20 pounds
Lima beans	50 pounds
Coffee	50 pounds
Rice	425 pounds
Olive oil	9 barrels
Biscuits	67 boxes
Flour	100 pounds
Macaroni	250 boxes
Eggs	238 dozen
Butter	26 pounds
Strawberries	176 quarts
Tea	45 pounds
Mustard	28 bottles
Liquid eggs	28 dozen

Miscellaneous:

Olives	155 gallons
Wheat	30 pounds
Quaker oats	39 packages
Misc. cereals	100 pounds
Canned corn	45 cans
Canned beans	45 cans
Misc. groceries	200 pounds
Carrots	6 pounds
Beets	2 pounds
Parsnips	8 pounds
Potatoes	37 bushels
Radishes	10 bunches
Asparagus	68 bunches
Pineapples	10
Cucumbers	3 bushels
Oranges	21 dozen
Lemons	54 dozen
Apples	4 dozen
Tomatoes	15 pounds
Squash	10 dozen
Canteloupes	10 dozen
Raspberries	18 boxes
Olives (Zatas)	54 pounds
Chocolate	30 pounds
Figs	17 pounds
Candy	16 pounds
Nuts	8 pounds
Nutmegs	165 pounds
Pepper	9 pounds
Gelatine	25 packages
Jelly	16 bottles
Oil	16 quarts
Sauce	36 cans
Stores examined	1,259
Prosecutions	4
Fines	$160

SANITARY INSPECTION.

New reports	1,989
New tenement house reports	47
Legal notices recommended	572
Reinspections	5,300
Nuisances reported	4,433
Complaints investigated	982
Number of court cases	7
Fines	$50

MORBIDITY AND MORTALITY FOR FIRST HALF OF 1916.

(Twenty-six Weeks.)

	1915.	1916.
Total deaths	6,538	7,024
Nonresident deaths	875	920
Deaths under 1 year of age	986	1,038
Pneumonia	908	1,086
Cancer	480	462
Heart disease	926	1,003
Diarrhea and enteritis	92	86

DEATHS FROM COMMUNICABLE DISEASES FOR SAME PERIOD.

	1915.	1916.	1916 Non-residents.
Diphtheria	128	125	30
Scarlet fever	66	26	15
Measles	25	63	3
Typhoid fever	15	8	1
Whooping cough	38	48	2
Tuberculosis	593	594	49

CASES OF COMMUNICABLE DISEASES REPORTED.

(Twenty-six Weeks.)

	1915.	1916.	1916 Non-residents.
Diptheria	1,696	1,916	206
Scarlet fever	2,197	1,369	295
Measles	4,214	4,086	66
Typhoid fever	114	57	4
Whooping cough	905	1,021	19
Tuberculosis	1,486	1,332	112

MONTHLY METEOROLOGICAL SUMMARY, JUNE.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.95; highest, 30.19, date, 16; lowest, 29.61; date, 4.

TEMPERATURE.

Highest, 84; date, 27; lowest, 47; date, 11; greatest daily range, 24; date, 21; least daily range, 1; date, 10; normal for month, 65.8°.

PRECIPITATION.

Total this month, 5.04; snowfall, 0.0; greatest precipitation in 24 hours, 1.51; date, 17; snow on the ground at end of month, 0.0; normal for this month, 3.03.

WIND.

Prevailing direction, east; total movement, 6,845 miles; average hourly velocity, 9.5; maximum velocity (for five minutes), 28 miles per hour, from west, on 8th.

WEATHER.

Number of days clear, 8; partly cloudy, 11; cloudy, 11; on which .01 inch, or more of precipitation occurred, 12.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 13, 24; lunar, 0; hail, 0; sleet, 0; fog, 16, 18; thunderstorms, 13, 18, 19; frost: light, 0; heavy, 0; killing, 0.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

JULY, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

B P L

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.

Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, JULY, 1916. NO. 7

"Health is the most admirable manifestation of right living."

SYPHILIS SHOULD BE A REPORTABLE DISEASE.

The great progress that has been made in the past few years in the diagnosis and treatment of syphilis demonstrates that this disease can be brought under control and supervision and with better results than has been accomplished in tuberculosis.

The outlook for the cure and prevention of this disease is more than probable if the good results recently reported attending the use of Salvarsan are confirmed by time and experience.

If, by Salvarsan, a patient's condition can be so improved that he is no longer a source of danger to others, it is only a question of time before the spread of this disease can be materially diminished.

Every patient that is made free from infection means the removal of one focus of infection from that community.

With our present knowledge and the methods that have been successfully adopted for the diagnosis and cure of this disease the time has arrived when it should be controlled the same as other infectious diseases.

In this state, once a disease is declared dangerous to the public health it is the duty, under the law, for boards of health to furnish hospital accommodations and treatment for indigent patients. If progressive sanitary methods are to prevail for the care of this disease it will be necessary that health departments be furnished with all necessary information concerning cases that are in existence.

The source of infection must be sought out, and this information can only be furnished by the patient.

The first and most necessary step in any campaign against

any communicable disease is to know the number of cases, the location of the same and whether or not they are a menace to the community.

The law of our state demands, before cases must be reported by physicians, that the State Department of Health declare a disease one dangerous to the public health, and that this condition exists at the present time is a fact well known to physicians and those engaged in the work of preventive medicine.

The same objection to the registration and reporting of these cases will probably be brought forward as was formerly heard on the registration of tuberculosis, viz., physicians will not report their cases; patients will consult irresponsible practitioners for advice and treatment; the disease will be concealed.

Until May, 1900, the same conditions prevailed in this city as regards tuberculosis as we have today in syphilis. Physicians were not obliged to report cases; no hospital facilities for abandoned and dying cases; no laboratory facilities for diagnosis, and no supervision of cases by nurses and physicians.

That physicians will obey the law has been demonstrated in the case of tuberculosis. At the present time in our city it is rare to have a death reported from tuberculosis without having a complete history of the case on file at our office.

No medical man acquainted, as he must be, with conditions at the present time can furnish or present any valid reason for not reporting these cases. The same system can be adopted as is now being used with such success in tuberculosis.

Cases that are receiving the proper care and under the supervision of their own physicians need not be visited or kept under surveillance. Already, many states require, under penalty, the reporting of these cases. The law in some states provides that the reports shall be absolutely confidential, shall not be accessible to the public, nor shall such records be deemed public records.

Many of the states furnish Salvarsan, also laboratory facilities, to practitioners for treatment.

Heretofore, the great objection to the control of this disease by health departments has been the long course of the disease.

It was impossible to segregate and treat patients for a period of many years. The question of expense was prohibitive. Variola, diphtheria, scarlet fever, measles and other communicable diseases, with the exception of tuberculosis and leprosy, under the control of health departments, are diseases of short duration and yield readily to treatment.

At the present time there are not sufficient hospital facilities for syphilitic patients who are known to be a danger and menace to the community.

Cases are being called almost daily to our attention, which, after being investigated, show that ignorant or careless patients have infected many individuals. We are unable to take action in many of these cases on account of lack of hospital beds and no legal control of patients.

The duty of a modern and efficient health department is the conservation of public health and the prevention of disease. To know disease and the dangers that may follow infection is one of our great aids in the prevention of disease. Therefore, the public must be educated and shown how much this knowledge means to themselves and their children and also the importance of early diagnosis and treatment.

This disease should be fought along the same lines as tuberculosis. Syphilis should be added to the list of diseases that have been declared dangerous to the public health, and therefore would be reportable; health departments should be equipped with laboratory facilities for diagnosis to determine the condition of patients; there should be supervision of cases; the state should furnish Salvarsan for treatment, as it is now furnishing sera for diphtheria and meningitis, and patients that are careless and liable to be a source of infection to others ought to be held in restraint. At the present time an individual who is infected with diphtheria, scarlet fever or any other disease that has been declared dangerous to the public health is quarantined and deprived of his liberty until declared free from infection. If such rigorous methods can be enforced for such diseases, how much more is it the duty of the state and the city, and especially those officials charged with the care of the public health, to take charge and control of patients suffering with syphilis. If our public hospitals and clinics are to adopt modern methods in diagnosis and treatment they should be equipped with laboratory facilities and some beds set apart for this disease.

A Wassermann survey recently made in some of our large hospitals showed a large number of patients infected and being treated for other diseases.

Many beds now in use for the after effects of syphilis could be released for other patients if the Salvarsan treatment were established in our hospitals.

This disease should be fought from a health standpoint entirely, and with the same methods that are now in use for other infectious diseases. The status and environment of

patients should not be considered. All infected persons should be amenable to the regulations made for the protection of the community. The majority of cases are self acquired and the results are well known to most patients before infection.

To enforce a law or health regulation on any one class or section of a community is bound to be a failure. Public opinion will not support health legislation under such conditions.

HAY FEVER.

Hay fever is a catarrhal condition of the mucous membrane lining the respiratory passages.

Its causes are the following factors: A nervous element, a pathological change in the nasal mucous membrane, and exciting constitutional dyscrasia as a lithemic or uric acid diatheses, and lastly such irritating elements as dust, pollens or animal emanations. The plants which form the type of hay fever producing weeds are the common ragweed, giant ragweed, western ragweed, false wormweed and the marsh and western elder. In the former the pollen is not only wind borne but is produced in such abundance that a slight blow will dislodge it in clouds and is so light that the wind will easily carry it to a considerable distance. Under favorable climatic and soil conditions the weed is found in every neglected field, on roadsides and in vacant city lots. In more moist lands, however, the giant ragweed takes its place and is found in similar profusion. These two varieties of ragweed have been found to be responsible for 85 per cent of all cases of autumnal hay fever in the sections in which these weeds are prevalent. It should also be remembered that the grasses are on the hay fever list. They grow in abundance, are wind pollinated with insignificant flowers and an abundance of pollen. Some of the common varieties are the Johnson, canary and smut grasses.

The symptoms of hay fever in the early stages resemble those of an incipient cold. It is attended with sneezing, blocking of the nostrils, due to a swollen mucous membrane, watery discharge from the nose and slight elevation of temperature. There is usually some difficulty in nasal breathing, which necessitates mouth breathing, causing the mouth and throat to become dry, and thus adding to the discomforts. Many of these cases are complicated with asthma, which increases the suffering of the patient.

The question of susceptibility is a complicated subject, but in this respect does not differ materially from susceptibility in

other diseases. It has been found that in most parts of this country from one to two per cent of the population suffers from hay fever at some time during the year, indicating that its victims may be counted by the hundred thousands.

Hay fever is common in children, but the reason that this is not more generally known is that these attacks are usually mistaken for "colds." In view of this parents should be warned, when the symptoms suggest hay fever, that the child should not be exposed to infection from hay fever weeds. Care should be exercised in allowing children to inhale flowers of suspicious weeds, not only on account of the danger of producing an acute attack of hay fever, but also because such an attack increases the child's susceptibility to hay fever pollens.

Immunity in hay fever is frequently only apparent, the freedom from attack being due to insufficient exposure. This explains the case of persons who have reached the age of thirty or more without being affected who suddenly develop an attack when they visit a place in which hay fever pollen is in the atmosphere or where, as frequently happens, they have moved their residence to such a locality. One attack increases the susceptibility and for this reason is usually followed by other attacks. It has been proven that many persons apparently free from hay fever react to hay fever pollen if the quantity is for any reason increased.

It must be admitted that thus far no method of cure has given very satisfactory results. Immunizing injections of pollen extracts and of vaccines have been tried but as yet have not passed the experimental stage. It is hoped that further investigation along these lines will eventually give sufficient data to decide the reliability of these methods. The principal drugs used at present in the treatment of hay fever are atropine, strychnine, quinine, internally, and for external use cocaine and adrenalin, followed by alkaline washes of soda bicarbonate or soda borate. Cocaine and adrenalin should be used sparingly because too frequent use not only lessens the effect but also depresses the heart and with the former causes the formation of the cocaine habit. Any deformities of the nasal cavity, such as hypertrophies, sinus disease or polypi, should receive attention and if there are sensitive areas they should be cauterized. No surgical treatment should be given, however, during an attack of hay fever.

When we realize the great number of persons afflicted with hay fever and the great suffering which it entails we can appreciate the importance of concerted efforts to prevent this disease. The first important step in this work of prevention is the educa-

tion of the public in the responsibility of pollen weeds in causing hay fever. When the public realizes that the common weeds are the cause of suffering to many persons they will look upon these weeds in a different light and will make use of one of the many ways of destroying them or at least preventing them from reaching the stage of pollination.

The method of eradicating the hay fever weeds is naturally a question of convenience and economy. The most effective is careful cultivation of the land. When this is not possible these weeds may be kept down by grazing cattle and especially by sheep. When neither of these methods can obtain, these weeds should be cut before reaching the flowering stage, as this will prevent both the pollinating and the formation of seeds. Chemicals may be used along the roadsides with beneficial results in destroying the growth. If these methods prevail for a few years the results will justify the cost and the energy expended.

Doctor Scheppegrell of New Orleans has done much valuable work on the matter of hay fever prevention and the Bulletin is indebted to him for much of the material written above.

FLIES AND SICK BABIES.

Recently the Bureau of Public Health and Hygiene of the New York Association for Improving the Condition of the Poor has conducted an inquiry, in coöperation with the Department of Health, into the relation between the presence of flies in houses and the occurrence of diarrhea in infants. An effort was made to determine whether flies, under these circumstances, are the chief carriers of the germs of diarrhea, or whether house dirt and artificial feeding were more prominent factors in this condition.

The cases were divided into a fly protected group and a fly exposed or control group. These were made as similar as possible. Nurses visited the infants every five days. The fly exposed control cases received the usual instruction in child hygiene work, but elimination of the house fly was not emphasized. In the protected group, protection of the baby as far as possible from contact with flies was made a pronounced feature, and constant use of netting was insisted on at all times. In this campaign more than 1,000 yards of netting were given to families in the protected group.

Sufficient progress has been made that partial results have been given out, so that attention might be directed to the subject during the present summer. These show that almost

twice (1.9) as many infants were attacked by diarrhea from fly exposed as from the fly protected infants. Aside from the influence of flies it was learned that almost twice as many infants were subjected to diarrheal attacks in dirty homes as in the clean homes. Artificial feeding, however, was found to be a most important factor of child mortality. About two and one half (2.4) times as many infants were attacked by diarrhea as among those breast fed. The combined influence of dirt and flies was found to be nearly equal to that of artificial feeding, even in fairly good surroundings. Almost two and one half (2.4) times as many fly exposed infants in dirty homes were attacked by diarrhea as were the fly protected infants in clean homes. Dirt and artificial feeding were found to be a combination which made life extremely difficult for the infant. More than one out of two were attacked with diarrhea.

The Journal of the American Medical Association states that studies of this kind are of great service in impressing the fact that disease among children is not a mysterious dispensation, but results from common factors — flies, dirt and artificial feeding.

THE PRESENT CONDITION OF ANTERIOR POLIOMYELITIS IN THIS CITY.

From July 12 to August 7 eleven cases of anterior poliomyelitis have been found in Boston.

Two cases came from outside towns and went directly to hospitals for treatment.

Six of the cases came from the infected districts in greater New York. A child living a few doors from one of the New York cases was infected with the disease evidently from this source. Two of the cases had been together in the same ward in an institution but the original source of the infection was not found. In the remaining two cases no history of exposure could be obtained.

In all cases that have come under our observation the evidence of direct infection shows clearly. Six cases have come from localities where the disease is prevalent and three others have been in direct contact with persons infected with poliomyelitis.

Of the eleven cases, two were adults, two between the ages of five and seven, seven between one and five years and two were under one year of age.

Four deaths have occurred, all within the first week of the illness. Three of these died from paralysis of cardiac and respiratory organs.

Autopsies were performed on three of the cases and characteristic lesions were found in the spinal cord. Two other post-mortem examinations were performed on suspected cases, but death in these instances was due to other causes. A large number of suspected cases of anterior poliomyelitis have been reported by physicians in this city and each suspect has been visited by a medical inspector of the department.

All cases found have been sent to the hospital except in instances where the physical condition of the patient did not warrant such a procedure.

The condition of Boston at the present time in relation to poliomyelitis is very satisfactory. Ample hospital facilities have been provided for cases that may arise. Physicians in the city are on the alert to report all suspicious cases.

The United States Public Health Service sends notice to this department of the intended Boston addresses of all children under fifteen years of age leaving New York. A visit is made to every such address, and children coming from infected cities or towns are kept under observation for three weeks.

SELLING DISEASED PORK FOR FOOD.

Judicial Decision Holding Dealer Liable for Damages Caused by Illness Resulting from Eating Pork Infected with Trichinæ.

The Supreme Court of New York has affirmed a judgment against a dealer for $1,000 damages for illness caused by eating pork infected with trichinæ. The pork had been inspected, and it bore the United States Government stamp.

Judge Howard, in the opinion, stated his belief that the old rule of law to the effect that "there is an implied warranty on the part of the vendor of foodstuffs that goods sold for immediate consumption are fit and wholesome" is a doctrine not suitable to modern conditions, but the court regarded the law as settled in the state of New York, and felt bound to adhere to the rule, though it was intimated that if an appeal were taken the Court of Appeals might reverse the decision.

The registration of sickness is even more important than the registration of deaths?

BEWARE THE ROLLER TOWEL!
Trachoma and Other Infectious Eye Diseases Are Spread in This Way

[Courtesy National Committee for Prevention of Blindness.]

SURVEY OF SICKNESS IN THE CITY OF BOSTON DURING JULY.

A survey of sickness among approximately 50,000 families in the City of Boston, including more than 200,000 persons, or 27 per cent of the entire population of metropolitan Boston, has just been completed by the Metropolitan Life Insurance Company through its field staff of over three hundred men in this city and vicinity. This survey is the fourth of its kind, the others having been conducted in Rochester, N. Y., Trenton, N. J., and in a group of the larger cities in North Carolina. In all of the surveys a number of searching tests indicated that the statistics collected were trustworthy indications of the approximate amount of sickness in the communities enumerated.

The sickness survey of Boston differed from those conducted in other communities in several important particulars. The agents of the company in Boston included in their inquiry not only members of insured families, but also a considerable number of families not insured with the company. The statistical results should be thoroughly representative, therefore, of conditions governing sickness in the entire population of metropolitan Boston.

The tabulation of the statistics is now well under way. Considerably more than one half of the enumeration schedules have been received to date. An examination of the material reveals the fact that the returns are much more satisfactory than has been the case in surveys for other cities. This fact is attributed to the great care displayed by agents and to the intelligent coöperation of the families enumerated, and the readiness of the families questioned to impart information is ascribed to the hearty coöperation of the Department of Health and the support of the daily newspapers in giving publicity to the enterprise. The resulting statistics will be of benefit not only to the Department of Health in the conduct of its work, but to hospitals, dispensaries and the medical profession in general. It must be remembered that no significant data on sickness in American communities has been made available since the inquiries of the 1880 and 1890 censuses. An extension of this sickness survey program by the Metropolitan Life Insurance Company to other representative cities in the United States will result in a valuable collection of facts on the nation-wide prevalence of sickness.

[Face of card.]

BOSTON CARD USED IN SICKNESS CENSUS.

Facts about all members of family on....., 1916.

Male or female.	Age.	Occupation.		Facts in columns 5, 6, 7, 8 to be given about sick persons only.			
		General nature of industry or business.	Trade or particular kind of work.	Disease or cause of disability.	How long sick to date?	Is physician in attendance?	Is sick person "Up, but unable to work," "In bed at home," or "In hospital," "Sanatorium." etc. (write the words)?
1	2	3	4	5	6	7	8

No. of persons in family.	No. of wage earners in family.	District.	Debit No.	Page in collection book.	See over for instructions.

[Reverse side of card.]

INSTRUCTIONS TO AGENTS.

Sickness Census, 1916.

1. A slip should be handed in to the superintendent for every family visited. Where there is no one sick, write the words "No one sick" across columns 5 to 8 of the schedule.
2. Every item called for should be filled out for each person in the family as per sample schedule.
3. The columns relating to sex, age, industry and occupation should be filled out for every person in the family whether sick or not.
4. The sick should include:
   (*a*) Those persons who are up and about, but are unable to work because of sickness or accident.
   (*b*) Those persons who are confined to bed at home because of disease or accident.
   (*c*) Those persons who are receiving treatment in hospitals or other institutions for the sick.
5. The question "How long sick to date?" should be answered definitely in days, weeks or months.

SPECIAL MILK.

Trade Name that Should be Applied Only to Clean, Safe Product of Permanent High Standard.

In many cities there is a tendency to grade milk and sell it to the consumer upon its merits. Such a system is most desirable, as it enables dairymen who handle a high-grade product to obtain recognition for their care. It also enables the consumers to choose their supply on the absolute merits of the various grades. This is a sound commercial feature and one that is already recognized in nearly all other industries. The purchaser of dry goods does not expect to buy silk at the price of calico, and on the other hand those who pay for silk should expect to get a quality better than calico.

At the present time there are on the market numerous brands of special milks. The average consumer has only a hazy idea as to what is meant by special milk, but usually considers it to be in some way superior to the ordinary milk sold. Some milk dealers have considered that milk a little richer in fat should constitute special milk, while others have adhered to the principle that such a grade should be cleaner and safer than the ordinary grades. It has happened that dealers were unable to explain satisfactorily to their customers the difference between the ordinary grade and the special. Whenever such a condition arises it is a serious setback to the development of markets for a legitimate grade of special milk.

A special milk may or may not be richer in fat than ordinary grades, but it certainly should be produced and handled in such manner as to be cleaner and safer than the ordinary grades handled by the individual dealer or by his competitors. In this way public confidence can be maintained and an increased price warranted. Dairymen are learning that it is good business to stand squarely behind their goods and to see that all claims are fully substantiated.

If a special milk is to be sold as such its standard should be high and permanent, so as to result in increased confidence and increased demand from consumers. There is hardly any better way to create a demand than to produce and maintain a high grade, and if this grade is to be termed "Special," it should by all means be as safe as possible, from a health point of view, and not a mere trade name. Business depends upon the demand, demand depends on quality and quality on the inclination of the man behind and the standard he wishes to set for his product. If special milk is to be included, it must be his best

effort along his chosen line of endeavor, and to this end every milk dealer should be able and willing to set and maintain a high standard. At present in most cities only a very small quantity of special milk is handled, and this unfortunate condition will continue until such time as consumers appreciate its advantages to the extent of creating sufficient demand to make its production a financial success.

LUNCHES FOR SCHOOL CHILDREN.

In feeding a child or grown person it is not best to think of any one meal apart from the other two. It is not convenient to supply at one meal all the elements that are needed for a growing body, but it is easy to supply at the other two meals the elements that have been left out at the previous meal, so that during the course of a day a person that is careful in his choice of foodstuffs may include all the necessary essentials.

For a child it is well to use caution in what you give it to eat and to drink. Simple foods, carefully prepared, and of sufficient variety to provide energy, furnish elements for building bone and tissue, stimulate growth and repair waste, are the dietary essentials for the child.

There are classes of foodstuffs from which should be chosen elements which go to make up a meal and to do this most effectively the three meals during the day should comprise food from the following varieties:

1. **Cereals or Starchy Foods,** such as bread (well baked), biscuits, rolls and crackers, cereal mushes and prepared breakfast foods.

2. **Rich Foods,** such as milk, meat, fish, poultry, eggs, cheese, dried beans, cowpeas, peas, peanuts and almonds, walnuts and other nuts. For children milk should always have a place in the daily feeding.

3. **The Fatty Foods,** such as butter, cream, salad oil, bacon and similar foods are important sources of energy and nourishment for the growing child.

4. **Fresh Vegetables and Fruit.**— Potatoes, greens, lettuce, green peas and beans, asparagus and all kinds of fruit. These should be washed thoroughly in several waters, especially those fruits which are eaten raw.

5. **Sweets and Desserts.**— Sugar should have its place in the diet of the child and may be served in cake, cookies, sweet chocolates, simple candy, honey, dried or preserved fruits, or as maple sugar and loaf sugar. In general, fruits, fresh,

baked, stewed or raw, and simple sweets are much better for children than rich pastry which contains a large amount of fat.

Lunches Suggested for School Children.

1. Sandwiches with sliced tender meat for filling; baked apples, cookies, or a few lumps of sugar.
2. Slices of meat loaf or bean loaf; bread and butter sandwiches; stewed fruit; small frosted cake.
3. Crisp rolls, hollowed out and filled with chopped meat or fish, moistened and seasoned, or mixed with salad dressing; orange, apple, a mixture of sliced fruits, or berries; cake.
4. Lettuce or celery sandwiches; cup custard; jelly sandwiches.
5. Cottage cheese and chopped green pepper sandwiches, or a pot of cream cheese with bread and butter sandwiches; peanut sandwiches; fruit; cake.
6. Hard boiled eggs; crisp baking powder biscuits; celery or radishes; brown sugar or maple sugar sandwiches.
7. Bottle of milk; thin corn bread and butter; dates; apple.
8. Raisin or nut bread with butter, cheese; orange; maple sugar.
9. Baked bean and lettuce sandwiches; apple sauce; sweet chocolate.

The school lunch container should permit ventilation, exclude flies, and should be of a material which permits thorough washing in boiling water. If glasses, paper cups, or spoons are provided, the child should be warned against letting other children use them. The child should be encouraged to wash his hands before each meal, and for this reason paper towels, paper napkins or clean cloths should be furnished. Food that does not require ventilation should be carefully wrapped in paraffin paper, and the soft or liquid foods should be packed either in jelly glasses, screw-top jars, or paper cups.

SEIZURE OF IMPORTED LOBSTERS.

During the month of June inspectors of this department acting with inspectors of the United States Government seized and denatured 5,652 pounds of lobsters. These lobsters were part of a shipment received in Boston from points in Nova Scotia and arrived here in a dying or dead condition.

These lobsters when shipped from Nova Scotia were in good condition but owing to length of time in shipment and bad weather conditions (it being cold and rainy) on voyage they died in great numbers.

The inspectors visited all the establishments and personally supervised the breaking up and denaturing of the dead lobsters, giving condemnation certificates for all lobsters so destroyed. These certificates were sent to the original shippers in Nova

Scotia, being proof to them that the lobsters were not used for food and consequently no payment would be made for them.

It has been suspected for some time that dead lobsters were being sold for food by unscrupulous dealers and the seizure in May of a wagon load of lobsters that were dead before boiling from a peddler who had placed rubber bands on the tails, showed to what lengths these dealers would go to deceive this department and the public.

As a result of this inspection and seizure there is practically no chance for these dead lobsters to be used for food. It is the intention of this department to proceed in a like manner with every consignment of lobsters received in this city.

CLEAN HANDS.

Disease germs lead a hand to mouth existence. If the human race would learn to keep the unwashed hand away from the mouth many human diseases would be greatly diminished. We handle infectious matters more or less constantly and we continually carry the hands to the mouth. If the hand has recently been in contact with infectious matter the germs of disease may in this way be introduced into the body. Many persons wet their fingers with saliva before counting money, turning the pages of a book, or performing similar acts. In this case the process is reversed, the infection being carried to the object handled, there to await carriage to the mouth of some other careless person. In view of these facts the following simple rules of personal hygiene should be adopted by every person in the United States:

Wash the Hands Immediately

Before eating,
Before handling, preparing or serving food,
After using the toilet,
After attending the sick, and
After handling anything dirty.

RECEIPTS FROM LICENSES.

The following figures show the steady increase each year in income from licenses issued by this department:

1913–14	$3,257 00
1914–15	4,553 14
1915–16	6,371 00
1916–17 (7 months)	10,084 00

SECTIONALISM.

During all medical history there has never been a time when the difficulties of the profession were greater than they are today; when it was more imperative that it should stand with an undivided front. We are in a transition period of unprecedented gravity. The social order of things is being changed. The system of workman's compensation is but one manifestation of the social revolution that is quietly but resistlessly going on. These changes are rooted in a profound sociologic movement of world-wide extent. In the British Empire and on the continent they are farther advanced than they are with us. They cannot be stayed, but they may be directed, and it behooves the medical profession to be alive to the changes going on and ready as an undivided body to meet them. Never has the need of unity been greater. If the profession shuts its eyes to these conditions and relapses into a state of guerrilla warfare within itself it will suffer irreparable harm. It is time that it woke up and came to itself and ceased bickering over nonessentials. This social revolution is profound in its nature, and goes to the very foundation of organized modern society. The medical profession, while gravely affected by it, is but a factor in its causation. This cannot be too strongly impressed on medical men. We are in the grasp of powers wholly outside of our profession, powers that run as deep as society itself. Our present state of disquietude is not due to one or to a few superficial causes alone. Organizations which seek to remedy our ills by gross commercialism, by vituperation and indiscriminate attacks on everything and everybody, are foredoomed to failure. Their outlook is narrow, erroneous and futile.—*New York State Journal of Medicine.*

DO YOU KNOW THAT

Better wages make better health?

Better health makes better citizens?

Better citizens make a better nation?

Cholera is spread in the same manner as typhoid fever?

NEW MILK STATION.

The Baby Hygiene Association has recently opened a new milk station in the Young Men's Hebrew Association Building, corner of Warren and Howland streets, Grove Hall.

REPORT OF THE HEALTH UNIT FOR THE MONTH OF JULY, 1916.

Visits by medical inspector:	
Contagious	55
Tuberculosis	21
Ophthalmia	10
Miscellaneous	18
Total	104
Cases visited by nurses:	
Medical	120
Babies	1,631
Total	1,751
Defective sanitary conditions found in tenement houses,	64
District physicians' calls	64

Instructive District Nursing Association.

Visits made by nurses	610

Baby Hygiene Association.

Total number of babies cared for	124
New babies admitted	35
Babies re-admitted	2
Conferences held	4
Total conference attendance	221
Home visits by nurses	657

Associated and Hebrew Federated Charities.

Cases investigated and assisted	11

Consumptives' Hospital Department.

Visits made by nurses	333

LOSSES BY SICKNESS, INJURIES AND DEATHS.

It is stated on the authority of the Industrial Relations Commission that 600,000 Americans die every year from preventable diseases, and of the 300,000 infants that perish it has been said that measures are available in every community whereby this total could be cut in halves.

Figures also show that 350,000 American workers are killed and 700,000 injured annually. Thirty million workers lose an average of nine days annually through illness, causing them a loss of $700,000,000 yearly.

SUMMARY OF VITAL STATISTICS.

There were 772 deaths reported in the four weeks ending July 29, against 800 in the corresponding period last year, and a death rate of 13.23 against 13.93.

Reported deaths of nonresidents numbered 108 against 107 last year.

Of deaths from reportable diseases the principal decreases were:

Tuberculosis (all forms)	20
Diphtheria	9
Scarlet fever	4
Whooping cough	9
Typhoid fever	5

and the principal increases were:

Measles	15

Other important differences were as follows:

Decreases:	
Cancer	17
Diarrhea and enteritis (under 2 years)	11
Diarrhea and enteritis (2 years and over)	8
Increases:	
Accidental and violent	16
Other causes	22

There were 5 less deaths under 1 year, 6 less under 5 years, and 25 less over 60.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	800	772
Nonresidents	107	108
Rate	13.93	13.23
Corrected rate, nonresidents deducted	12.07	11.38
Deaths under 1 year	130	125
Deaths under 5 years	201	195
Deaths over 60 years	219	194

CAUSES OF DEATH.

Erysipelas	2	3
Cerebrospinal meningitis	3	5
Measles	1	16
Scarlet fever	4	0
Pulmonary tuberculosis (all forms)	106	86
Whooping cough	11	2
Accidental and violent	55	71
Heart disease, endocarditis, pericarditis and nephritis	143	146
Bronchitis	1	5
Cancer	67	50

	1915.	1916.
Diarrhea and enteritis (under 2 years)	31	20
Diarrhea and enteritis (2 years and over)	11	3
Meningitis and encephalitis	4	4
Old age	4	1
Pneumonia	63	59
Premature birth	36	35
Puerperal diseases	10	11
Rheumatism	1	1
Other causes	222	244
Anterior poliomyelitis	0	1
Diphtheria	16	7
Anthrax	1	0
Typhoid fever	6	1
Varicella	0	1
Dysentery	2	0

The following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending July 29, 1916:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	167	192	6	16	32	39	3	4
Scarlet fever	54	137	0	0	12	35	0	2
Measles	516	307	16	1	10	1	0	0
Typhoid fever	21	43	0	1	1	7	0	4
Whooping cough	113	210	3	11	0	3	0	0
Tuberculosis (all forms)	218	194	70	81	16	16	6	16

CENTRAL DIVISION.

Legal notices authorized	632
Prosecutions authorized	27
Hearing	1
Premises ordered vacated	5
Miscellaneous orders	1

Licenses — Permits.

Milk	126
Manicure — Massage	20
Hens	40
Vehicles inspected and approved	131
Licenses to peddle fruit and vegetables	70
Numbers assigned	683
Dump	2

License revoked	1
Stable permit granted	1
Court cases	5
Fines	$30

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	1,611
Antitoxin given	41
Deaths investigated	15
Cases brought to Boston for treatment	62
Vaccinations	10
Vaccination certificates	2
Patients forcibly removed to hospitals	4
Antityphoid vaccine	41
Poliomyelitis contacts visited	215

Public Health Nursing.

Communicable disease visits	1,816
Prenatal visit	1
Postnatal visits	257
Number of revisits	9,847
Total visits by nurses	11,721

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	666
Tuberculosis	335
Typhoid	124
Syphilis	229
Gonorrhea	201
Other examinations *	163
Bacteriological milk examinations	545
Bacteriological ice cream examinations	23

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	254
Calves inspected	305
Swine inspected	4,278
Animal condemned, whole	1
Parts condemned	369

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	945
Bacteriological examinations of milk	545

* Examination of rats, 88; Malaria, 26; Ophthalmia, 30; Genito-Urinary Tuberculosis, 13; K. L. virulence, 1; spirochætæ, 1; Paratyphoids, 4.

Bacteriological examinations of ice cream	23
Chemical examinations of vinegar	133
Chemical examinations of butter and cheese	3
Chemical examinations of ice cream	53
Number of court cases	21
Fines	$251

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Meats and Fish:	
Poultry	218 pounds	Ham	310 pounds
Beef	295 pounds	Lamb	190 pounds
Pork	4 pounds	Veal	478 pounds
Corned beef	60 pounds	Bear meat	137 pounds
Halibut	120 pounds	Squab	8 pounds
Hamburg steak	1 pound	Swordfish	25 pounds
Sausages	714 pounds	Miscellaneous:	
Lobster	5,652 pounds	Olives	50 gallons
Blood pudding	7 pounds	Stores examined	641
Liver	8 pounds	Prosecutions	9
Smoked meat	6½ pounds	Fines	$285

SANITARY INSPECTION.

New reports	2,792
New tenement house reports	19
Legal notices recommended	632
Reinspections	4,279
Nuisances reported	4,649
Complaints investigated	813
Number of court cases	2
Fines	$2

MORBIDITY AND MORTALITY FOR FIRST HALF OF 1916.

(Thirty Weeks.)

	1915.	1916.
Total deaths	7,496	8,010
Nonresident deaths	1,009	1,074
Deaths under 1 year of age	1,134	1,200
Pneumonia	997	1,169
Cancer	569	523
Heart disease	1,038	1,128
Diarrhea and enteritis	125	109

DEATHS FROM COMMUNICABLE DISEASES FOR SAME PERIOD.

	1915.	1916.	1916 Non-residents.
Diphtheria	146	123	34
Scarlet fever	71	33	16
Measles	28	74	3
Typhoid fever	21	9	1
Whooping cough	49	44	2
Tuberculosis	689	669	57

CASES OF COMMUNICABLE DISEASES REPORTED.

(Thirty Weeks.)

	1915.	1916.	1916 Non-residents.
Diphtheria	1,846	1,587	245
Scarlet fever	2,388	1,443	308
Measles	4,654	4,923	86
Typhoid fever	151	80	5
Whooping cough	1,153	1,154	19
Tuberculosis	1,740	1,619	132

MONTHLY METEOROLOGICAL SUMMARY, JULY.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.99; highest, 30.38, date, 15; lowest, 29.51; date, 3.

TEMPERATURE.

Highest, 93; date, 31; lowest, 56; date, 5; greatest daily range, 29; date, 7; least daily range, 8; date, 23; normal for month, 71.3°.

PRECIPITATION.

Total this month, 5.67; snowfall, 0.0; greatest precipitation in 24 hours, 2.03; date, 3; snow on the ground at end of month, 0.0; normal for this month, 3.36.

WIND.

Prevailing direction, southwest; total movement, 6,515 miles; average hourly velocity, 8.8; maximum velocity (for five minutes), 26 miles per hour, from west, on 21st.

WEATHER.

Number of days clear, 7; partly cloudy, 7; cloudy, 17; on which .01 inch, or more of precipitation occurred, 16.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 10.31; lunar, 0; hail, 3; sleet, 0; fog, 20, 27, 29; thunderstorms, 2, 3, 4, 8, 9, 10, 13, 23, 31; frost: light, 0; heavy, 0; killing, 0.

AMERICAN PUBLIC HEALTH ASSOCIATION MEETING.

The meeting this year of the American Public Health Association will be held in Cincinnati, Ohio, October 24 to 27, and on the third day of the meeting of the Public Health Administrators Section, Doctor Hastings, Health Officer of Toronto, will read a paper on "What are the Limitations of Public Health Administration," and Dr. E. A. Shepley of the New York City Health Department will read a paper on "Public Health Administration on the District Plan — an Experiment by the New York City Health Department."

ALLIED PRINTING TRADES UNION LABEL COUNCIL BOSTON, MASS.

1559

AUGUST, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.	
Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the reporting of cases of communicable diseases, issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

FREE WASSERMANN TESTS.

The Bacteriological Laboratory is prepared to examine blood specimens by the Wassermann test for syphilis free of expense. Tests are made each Tuesday, Wednesday, Thursday and Friday.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, AUGUST, 1916. NO. 8

"Money appropriated for public health work is an investment, not an expense."

ANTERIOR POLIOMYELITIS SITUATION IN BOSTON.

Up to and including September 20 there have been reported to this department 180 cases of anterior poliomyelitis and 50 deaths. Of these 180 cases 44 have been brought into Boston from outside cities and towns. The 136 found in Boston are in the following sections of the city:

East Boston	38	South Boston	9
Hyde Park	27	Brighton	2
Dorchester	16	South End	2
Charlestown	10	West End	9
Jamaica Plain	1	North End	11
Roxbury	10	Boston Harbor	1

From outside cities and towns 44

The cases have been found in the following age periods:

Under one year	21
Under two years	45
Under three years	31
Under four years	20
Under five years	6
Between five and ten years	3
Over ten years	10

Every case of this disease in Boston is immediately removed to the hospital, if the condition of the patient warrants. As soon as the patient is removed, premises are disinfected and all contacts kept under supervision for a period of three weeks.

No secondary case has been found in the immediate family or in the same house.

WARNING TO PARENTS.

During the present outbreak of Infantile Paralysis, it has been observed in New York and Boston that the moment the names of Infantile Paralysis patients become known they or their families receive a large number of letters from various "quacks," promising cures at all manner of prices from one dollar to one hundred, and in any length of time from one day to one week. Naturally, some of the families have fallen victims to these frauds in the hope of avoiding the lengthy hospital treatment.

Every case of Infantile Paralysis, in order to obtain the best results, should be under the constant care either of a reputable physician or some hospital that possesses the means and equipment for the treatment of these cases.

Many of these little patients whose lives have been saved will require months of after-treatment in order to have the functions of some of the affected muscles restored. Therefore, it behooves mothers and fathers to seek the best possible medical advice for the after-care of these patients.

CLEAN UP.

The eradication of filth is in part the duty of every citizen, and each should see that his own surroundings are in a satisfactory condition. He should guard against carelessness in the maintenance and preparation of food and withhold his patronage from those who disregard the rules of cleanliness, remembering that the foods which are most subject to contamination are milk, milk products, oysters and vegetables. The rôle of flies in the dissemination of infection is now generally recognized. The elimination of such fly-breeding places as are furnished by improper care of garbage, manure and filth is most essential, but the proper screening of houses and the adoption of destructive measures are also of great prophylactic value. If, in spite of these precautions, disease develops, it then becomes the duty of every citizen to implicitly follow the instructions given in order that the safety of others may not be imperiled, bearing in mind the fact that every case of communicable disease is due to someone's ignorance or carelessness. No higher duty of citizenship than this can be conceived.

SCHOOL OPENING AND CLEANLINESS.

On account of the prevalence of anterior poliomyelitis in this city much anxiety has been felt by parents of school children.

In view of the fact that the number of cases from this disease is not diminishing and the possibility of further spread of the disease with the mingling of children in the schools, together with the knowledge that many parents were intending to keep their children from school until the number of cases had decreased, and the requests of many family physicians that the opening be postponed, a special meeting of the School Committee was held, to which the Health Commissioner was invited. By a unanimous vote of the School Committee it was decided that the Boston schools would not be opened until September 25, 1916. It was the opinion of the members that if the number of cases of poliomyelitis had not decreased by that time a further delay would be voted.

Heretofore it has been the custom of this department to mail to the schools and to the school physicians the daily list of communicable diseases about two or three days prior to the opening date. This year it was decided to start the list three weeks earlier in order that school physicians might

familiarize themselves with the names and locations of cases of communicable diseases in their school districts. This will help the physician immeasurably in the exclusion of children living in infected premises.

In the school rooms children come in contact with each other in a great degree, and with the beginning of the school term comes the inevitable increase in cases of measles, whooping cough, scarlet fever and diphtheria.

This year, with the opening of schools postponed on account of the prevalence of anterior poliomyelitis, with the daily press notices of the cases and deaths from this disease in the different cities and towns, the campaign of education and publicity that is taking place, and the hearty coöperation that will prevail amongst the physicians, nurses, teachers and parents, it is expected that the usual increase in communicable diseases will be lessened. The delay will give parents time to reflect and consider. It behooves them all to see to it that the children are sent to school properly clothed, cleaned and fed. The nurses and school teachers will be watchful and will report cases of seeming illness to the school physician, who will at once exclude such children from the schools, and the danger of infecting others will be minimized.

It is a well-known fact that communicable diseases are most common in children from two to eight years of age. This is undoubtedly due to the fact that the opportunity for close contact with other children is greater and also that at this age they have but little idea of cleanliness.

Mothers and sisters should take it upon themselves to personally see that their school children are properly washed in the morning, that they have time enough to partake of a satisfactory breakfast (and not rushed to school on an empty stomach), that they are properly and cleanly clothed, and that a handkerchief is provided at least each morning. Teach them the idea of cleanliness. We know they will acquire it later, but while they are in school and in contact with other children the danger of contracting communicable disease is greatest.

Dirty heads and dirty hands lead to many diseases. Dirty heads lead to pediculosis, favor glandular infections and enlargements, and septic conditions of scalp due to scratching. Dirty fingers cause much annoyance and trouble. Ninety per cent of infection is taken into the body through the mouth by the fingers or through food and drink. It is essential that we have clean hands. Hands should be washed thoroughly

before and after eating or handling foodstuffs either in the kitchen, dining-room or schoolroom, when you leave the chamber, toilet, sickroom and after handling articles used by sick persons. Use a brush and hot water and soap to reach the dirt that is often concealed under the finger nails. Hot water and common soap are cheap and safe and wonderful cleansers and they are within the reach of everyone at all times. Keep your hands, face and body clean.

Practise this and teach it to your children. Tell them that fingers and filth cause disease that oftentimes leads to death; that fingers should be kept from the mouth; that they should keep pencils, pens, erasers, chalk, toys, money away from their mouths and that they should not swap chewing gum or cores of fruit. Tell them never to wet the pages of books in turning them or in counting sheets of paper. Impress on the children the importance of using their handkerchiefs. Disease is always rampant. It is often contracted in these simple ways.

COMMUNICABLE DISEASES.

Noticeable Symptoms.

Conditions which would call for isolation and special attention in children who feel ill: A sore throat should make one think of scarlet fever or diphtheria; a persistent discharge from the nose, of diphtheria; a catarrh or cough with fever, of measles; vomiting with fever, of scarlet fever; weakness or lassitude in a child previously well, of diphtheria; a cough which comes in spells, of whooping cough; a croupy cough, of laryngeal diphtheria; a rash on the skin, of measles, scarlet fever, rubella, or chicken pox.

Regulations.

1. Whoever is infected with **smallpox, scarlet fever, diphtheria, measles, typhoid fever, varicella, cerebrospinal meningitis, anterior poliomyelitis, or any other disease dangerous to the public health,** shall immediately proceed to some isolated place or room designated by the Health Department, and no person who has been so affected shall leave such place or room, and no article shall be removed from such place or room until the Health Department shall certify in writing that all danger of communicating such disease to others is passed.

2. Every parent or guardian of any child or ward infected with **smallpox, scarlet fever, diphtheria, measles, typhoid fever, varicella, cerebrospinal meningitis, anterior poliomyelitis or other disease dangerous to the public health,** shall immediately cause such child or ward to be conveyed to some isolated place or room approved by the Health Department, and no parent or guardian shall permit such child or ward to

remove from such place or room until the Health Department shall find and certify in writing that all danger of communicating such disease to others has passed.

3. No person other than the attending physician, nurse, and agents of the Health Department shall enter, nor shall any dog, cat, or other animal be allowed to enter any apartment or other place set apart for the treatment of smallpox, scarlet fever, diphtheria, measles, typhoid fever, varicella, cerebrospinal meningitis, anterior poliomyelitis or any other disease dangerous to the public health, until the Health Department shall certify in writing that such apartment or place has been satisfactorily disinfected.

4. No person having the care of any other person who has been infected with smallpox, scarlet fever, diphtheria, measles, typhoid fever, varicella, cerebrospinal meningitis, anterior poliomyelitis or any other disease dangerous to the public health, shall advise or permit such other person to leave any place designated by the Health Department as a place of isolation of such infected person before said Health Department shall have certified in writing that such person can leave such designated place without danger to others.

5. No physician who has been in attendance upon any person who has been infected with smallpox, scarlet fever, diphtheria, measles, typhoid fever, varicella, cerebrospinal meningitis, anterior poliomyelitis or any other disease dangerous to the public health, shall advise or knowingly permit such person to leave any place designated by the Health Department as a place of isolation of such infected person before said Health Department shall have certified in writing that such infected person can leave such place without danger to others.

SUMMARY OF STATE LAWS AND RULINGS RELATING TO THE PREVENTION OF BLINDNESS FROM BABIES' SORE EYES.

Blindness from babies' sore eyes (ophthalmia neonatorum) would practically never occur if a prophylactic were used in the eyes of every infant immediately after birth, and if every case of redness, swelling and discharge from the eyes of infants were promptly and adequately treated.

The prevention of blindness from this cause depends entirely on the education of the general public to its dangers, and the use of a prophylactic in every baby's eyes immediately after birth — by the physician, midwife, or nurse in attendance. In addition to widespread publicity, certain legal provisions are necessary to accomplish the desired result. To ascertain how far these provisions exist in the various states, the National Committee for the Prevention of Blindness has made a study of those state laws and regulations which relate to the control of ophthalmia neonatorum. A tabulation of the provisions of these laws is as follows. County and city acts, ordinances and rulings are not included.

This material, briefly summarized, shows the following:

1. The reporting of babies' sore eyes to the local health officer or to a physician is compulsory in . . . . . 37 states.
2. The reporting law is printed on the birth certificate in . 7 states.
3. Local health officers are authorized and required to secure medical attention for uncared-for cases, or to warn parents of the dangers and advise immediate treatment in 21 states.
4. Births are reported early enough to be of assistance in prevention of blindness work in . . . . . 11 states.
5. The question as to whether or not precautions were taken against ophthalmia neonatorum is included on the birth certificate in . . . . . 14 states.
6. Free prophylactic outfits are distributed to physicians and midwives in . . . . . 16 states.
7. The use of a prophylactic as a routine is compulsory in . . 15 states and strongly recommended in an additional . . . 5 states.
8. Popular educational leaflets, relating in whole or in part to prevention of infantile blindness, are distributed by State Departments of Health in . . . . . 20 states.

The first statutory requirement which should be made by all the states would seem to be compulsory reporting of all cases of babies' sore eyes to the local health officer, with a penalty attached for not doing so. Medical attention could then be provided for all uncared-for cases, while the information secured regarding babies who are attended by physicians, as well as those who are not, would be valuable in showing the frequency with which this disease occurs, and the frequency with which injury results from its neglect.

NIGHT AIR.

The old feeling still lingers that night air is bad, productive of many ills, and most commonly malaria.

Of course this is all wrong. Pure air may be breathed at night, especially by those whose daily occupations do not permit of such, by throwing open wide the windows of their sleeping rooms. And furthermore, while there is no sun to heat the atmosphere and kill germs we have less impurities in the night air. Circulation of dust is less, there is but little smoke, gas and ashes from chimneys, and the atmosphere in general is clearer.

It is of course well to get all the fresh air possible during the day; it is still better to get it both night and day, but if it is not possible for you to receive a good supply during the daytime do not be afraid of night air. Let your lungs have all of it that you can possibly inhale.

MILK SUGGESTIONS.

Mother's milk is the best infant food.

If baby must use cows' milk, buy the best. It is good health insurance.

Pasteurized milk is the safest commercial milk. The use of pasteurized milk means less sickness.

If milk sours, it may be your fault; keep it iced.

If milk is dirty, have you kept it free from dust and flies and in clean vessels?

Milk bottles should be used for milk only. Are you misusing milk bottles and violating the law?

Help protect milk by washing milk bottles and returning them promptly.

One thousand five hundred milk bottles are collected daily from the city dumps because consumers don't return them. Are you guilty?

GARBAGE DISPOSAL AND DERIVATIVES.

There has always been a great abhorrence by people in this country for garbage and rubbish.

All kinds of diseases have been ascribed to it by the layman. To get rid of it as quickly as possible and in any manner seems to be the idea of the majority.

This majority is by no means confined to the poorer sections of the city. We have but to glance at the areas and yards about the large apartment houses in this city to have this substantiated. In these houses of two, three and four room suites with kitchenettes, and where light cooking is done on the premises, the occupants seem to feel that the easiest, best and quickest way to dispose of garbage and rubbish is to throw it out of the window. Then they are through with it. They have no tin cans, papers, rubbish or garbage about them. The garbage barrel and ash barrels in most instances are but a few steps away, but it seems that the window is nearer. There is also an enormous amount of rubbish and garbage that is thrown out from kitchens, both the family and hotel.

By some this has been called the "Great American Waste," inasmuch as it is claimed, and rightfully so, that more good material, including foods, is thrown away daily than would feed and clothe many poor families. In countries that are devastated by war and where the foodstuff supply is low or limited, measures have been taken by the governments to conserve the food supply by eliminating waste and saving and consuming many of those things that formerly found their way into the barrel.

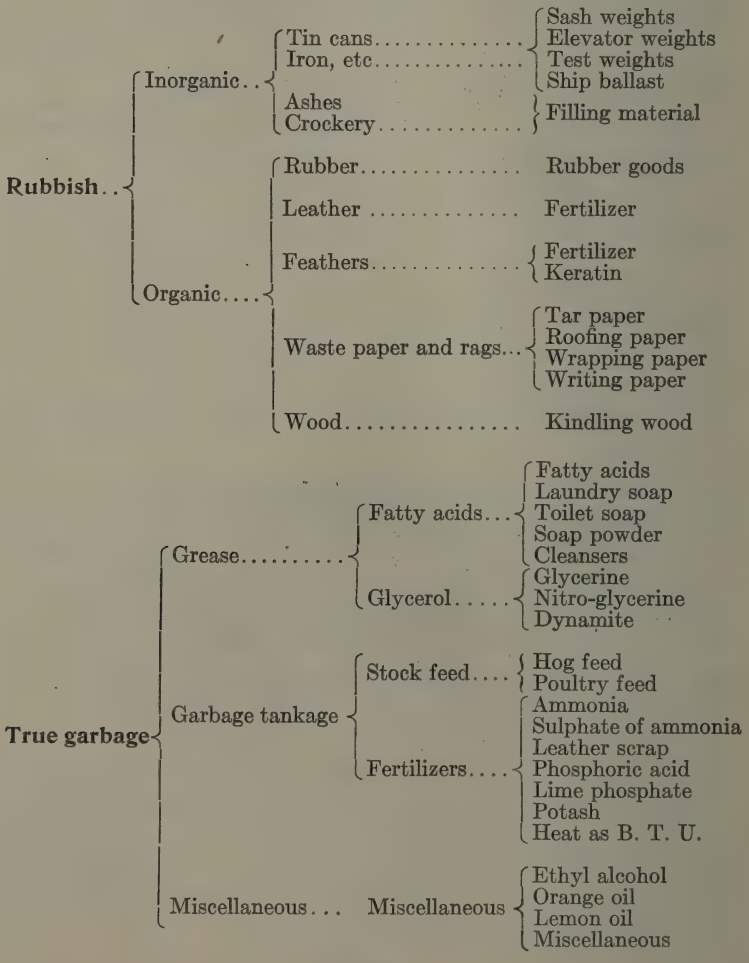
In this country, where there is neither famine nor war to demand such procedure, "The Fat American Garbage Can" has been commercialized and these "Treasures in the Raw State" are producing derivatives that warrant the expenditure and investment of money in the installation of great reduction and incinerating plants where oftentimes the financial returns are large. The modern machinery doing this work does much to prevent and eliminate obnoxious odors.

All the people are interested in a matter of this kind. The individual who conducts the plant, the merchant who makes and sells the machinery, and the great mass of people who hope that the time will soon come when rubbish and garbage will be collected and disposed of quickly and often. This also will in a large measure do away with breeding places for flies, fleas and other vermin, and feeding places for rats.

The tendency today is to abolish the "swill bucket" and the "ash barrel." Cities and towns must bear the responsibility for the proper and prompt removal of waste, but at the same time they must have the hearty coöperation of the public. There is such a thing as a clean receptacle for garbage, ashes and rubbish, and a covered and clean receptacle for this matter is never a nuisance.

In the commercialization of these wastes it is interesting to note the many and varied kinds of derivatives that are secured, which are bailed, bundled and bottled, and which ultimately are purchased by the people who discarded them in their raw state.

DERIVATIVES FROM GARBAGE.



MILK SUPPLY OF BOSTON.

A large territory is combed by local milk contractors that are furnishing Boston with its daily supply of milk.

The dairy inspectors of this department visit more than 12,000 dairy farms that send milk and cream to Boston for local consumption. Constant inspection and reinspection of these dairies has done much to give Boston a splendid supply of pure milk, probably the best of any city in America.

This milk comes from Eastern New York, Canada and the New England States with the exception of Rhode Island. Boston receives milk from as far north as Quebec.

In this city where nearly 400,000 quarts of milk are consumed daily it is apparent that much discomfort would be caused if the amount was diminished to any great extent. In anticipation of a railroad strike an investigation was made to ascertain just how much milk could be brought to Boston other than by railroads, with the following results:

Name of Milk Firm.	Quarts.	
H. P. Hood & Sons	16,000	
Alden Brothers Company	14,000	
D. Whiting & Son	15,000	
Deerfoot Farm Company	3,000	
C. Brigham Company	7,000	
Elm Farm Milk Company	500	
		55,000

This amount could be increased by the milk now being distributed under normal conditions daily in this city as follows:

	Quarts.	
Brought in by wagons	29,138	
Raised in the city	4,139	
		33,277
Grand total		88,277

Based on the daily consumption of approximately 336,650 quarts this would equal 26.61 per cent of the normal supply.

A HEALTHFUL HOME.

A healthful home should have plenty of sunshine, no dust, and a temperature ranging from 65 to 70 degrees. An overheated room is dangerous. Keep the home clean and well screened and flies, mosquitoes and other insects will vanish.

Sunshine, fresh air and cleanliness are foes of disease.

TYPHOID FEVER DEATHS DECREASING IN BOSTON.

Typhoid collects as a toll 100 victims to every passenger killed in railroad accidents.

In ten years one person in every thirty-three suffers from the disease.

Every year in this country there are 300,000 cases and 20,000 typhoid deaths.

With these facts in mind it is well to remember that the best prevention for this disease is *cleanliness*.

Those engaged in preventive health work in this city should feel gratified at the wonderful progress that has been made in Boston in the reduction and prevention of this disease.

For the eight months, from January to September, there have been reported in Boston but twelve deaths from typhoid fever, the lowest number since this disease was first reported in 1856. Included in this number are three nonresidents. When we consider the rapid strides that Boston has made in reducing the mortality from this disease and that last year it led all the large cities in having the lowest rate, we may well feel proud of the fact that this excellent rate of 1915 will probably be reduced one half this year.

If the present ratio is maintained Boston may look forward to having a rate of under 2.5 for 1916. Last year it was 5.3, which was the lowest figure ever reached by any of the large American cities. This rate will place Boston on a par with the large European cities having low rates, such as London, Berlin, Vienna, Copenhagen, Edinburgh, Christiana, and in the van of all American cities.

We have but to look back only a few years to realize the great decrease that has taken place in deaths from typhoid fever in this city. In 1908 there were 158 deaths from this disease, in 1914 there were 66, in 1915 only 40, and thus far this year but 12. During the period between 1906–10 the death rate from typhoid fever was 16.0, in 1914 it was 9.2, last year 5.3, and this year it is hoped that it will not exced 2.5.

DEFEAT OF BILL PROVIDING FOR A NATIONAL LEPROSARIUM.

It is rather unfortunate that in the closing hours of Congress the United States Senate refused consideration on the bill providing for a national leprosarium. This bill carried with it an appropriation of $250,000 and provided for the care of all lepers in the country by the national government, and seemed worthy of passage.

CARE IN LIVING.

The desire for ease of life and plentiful diet is universal and is the great stimulus of man and animals alike. When man becomes greedy and takes more ease and food and drink than is his share, Nature discards him.

In the race for power and place, for ease of circumstances and relief from the stimulus of hunger, the modern man is apt to forget that unless he is careful of his body he will soon be made to suffer for the infraction of Nature's inexorable physical law. With the loss in body tone comes an equal loss in mental acuity, and the brain which for a time was able to operate despite the complaints of an over-fed, under-exercised, self-poisoned body, stops working.

Statisticians have discovered that the mortality rate of persons in the United States over forty-five years of age is increasing. The strenuous life of today is not alone responsible for this. Lack of health-giving exercise, superfluity of diet, lack of restoring sleep, over-stimulation, the high pressure of the race for power, wealth and position, plus physical neglect, — these bring early decay. The goal is reached,— wealth is amassed,— honor, position and power are just being grasped when the apple of accomplishment turns to the ashes of dissolution. The brilliant mind becomes clouded, the steady hand is no longer accurate, the eye which once gazed fearlessly on the whole world is dimmed and it is not long before the final breakup occurs. All of this was entirely preventable.

Other things being equal it is the man who leads the well balanced life who lasts the longest, whose work to the end is uniformly the best, he who neither over-works nor over-plays, neither over-eats, over-drinks, nor over-sleeps, he who maintains a standard of simple healthy diet in moderation, who offsets mental work with physical recreation, who is as honest with his own body as he is with his own business. When success comes to such a one his physical and mental condition is such that he can enjoy in peace of mind and contentment of body the fruits of his labors.

The regulations of United States Public Health Service state: "It is the duty of officers to maintain their physical as well as their professional fitness. To this end they shall be allowed time for recreation and study whenever their official duties will permit." If the government regards it as essential that its sanitary experts shall be safeguarded in this way, is it not equally important to every citizen that he similarly maintain a high standard of physical integrity?

PULMONARY TUBERCULOSIS.

Cases by Sex, Condition, Color and Mother Nativity (Six Months).

	January.	February.	March.	April.	May.	June.	Totals.
Sex:							
Male	96	138	99	122	131	133	719
Female	46	74	59	72	61	82	394
Unknown	.....	5	4	.....	.....	.....	9
Totals	142	217	162	194	192	215	1,122
Conjugal Condition:							
Single	59	96	68	95	89	88	495
Married	57	75	65	62	63	79	401
Widowed	1	13	9	9	6	8	46
Divorced	4	1	1	1	2	1	10
Unknown	21	32	19	27	32	39	170
Totals	142	217	162	194	192	215	1,122
Color:							
White	124	196	148	175	182	203	1,028
Chinese and black	9	9	7	12	10	12	59
Unknown	9	12	7	7	.....	.....	35
Totals	142	217	162	194	192	215	1,122
Mother Nativity:							
Boston	31	42	23	31	31	20	178
United States	19	30	20	25	24	26	144
Ireland	25	57	41	57	45	48	273
England, Scotland and Wales	8	7	4	9	10	6	44
Germany	3	3	5	3	4	3	21
Canada	10	17	11	17	15	19	89
Sweden	2	3	1	3	7	4	20
Italy	6	15	15	14	12	11	73
France	.....	.....	1	1	.....	2	4
Russia	19	22	20	15	18	29	123
Other countries	11	15	12	13	15	15	81
Unknown	8	6	9	6	11	32	72
Totals	142	217	162	194	192	215	1,122

PULMONARY TUBERCULOSIS.

Cases by Kind of House Sanitation, Sleeping Arrangements, Sputum, Reports and Hospital (Six Months).

	January.	February.	March.	April.	May.	June.	Totals.
Kind of House:							
Single	1	4	6	7	24	21	63
Two Apartment	7	8	12	9	17	22	75
Three Apartment	19	32	21	28	73	77	250
Four Apartment	1	.....	2	.....	16	16	35
Hotel	1	1	1	1	.....	3	7
Lodging Houses	17	22	14	21	22	25	121
Institution	1	1	2	1	.....	1	6
Basement	6	5	2	4	.....	.....	17
Not Given	89	144	102	123	40	50	548
Totals	142	217	162	194	192	215	1,122
Sanitation:							
Excellent	7	31	21	22	17	27	125
Good	39	60	37	59	67	52	314
Fair	49	65	59	55	55	70	353
Poor	11	12	12	15	12	18	80
Very Poor	1	.....	1	.....	1	2	5
Not Given	35	49	32	43	40	46	245
Totals	142	217	162	194	192	215	1,122
Separate Room:							
Yes	80	127	86	120	110	122	645
No	32	38	44	40	40	45	239
Not Given	30	52	32	34	42	48	238
Totals	142	217	162	194	192	215	1,122
Separate Bed:							
Yes	86	130	101	133	117	126	693
No	26	38	31	30	34	42	201
Not Given	30	49	30	31	41	47	228
Totals	142	217	162	194	192	215	1,122
Sputum:							
Positive	30	58	48	52	70	49	307
Negative	10	17	13	19	25	19	103
Not Given	102	142	101	123	97	147	712
Totals	142	217	162	194	192	215	1,122
Hospital:							
Yes	62	89	66	107	78	90	492
No	80	128	96	87	114	125	630
Totals	142	217	162	194	192	215	1,122

Pulmonary Tuberculosis by Age Periods, January to June, 1916 (Inclusive).

Age Periods.	Under 5 years.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and under 45.	45 and under 50.	50 and under 55.	55 and under 60.	60 and under 65.	65 and under 70.	70 and under 75.	75 and under 80.	80 and under 85.	85 and under 90.	90 and under 95.	95 and under 100.	Totals.	Grand Total.
Males.....	14	13	21	33	91	103	91	98	74	57	51	35	19	9	2	3	.....	.....	.....	.....	714	1,122
Females.....	5	13	13	54	68	59	61	42	37	20	11	7	9	3	2	3	1	.....	.....	.....	408	

CASES REPORTED.

Pulmonary Tuberculosis, by Wards, January to June, 1916 (Inclusive).

Wards.	January.	February.	March.	April.	May.	June.	Totals.
1	1	6	4	1	6	2	20
2	4	12	9	12	12	12	61
3	5	4	2	5	2	8	26
4	3	7	6	7	7	7	37
5	30	28	28	32	21	35	174
6	20	15	12	16	18	26	107
7	5	14	6	11	7	15	58
8	5	11	9	8	7	10	50
9	8	13	6	14	12	9	62
10	3	8	4	5	7	10	37
11	1	12	10	6	7	5	41
12	8	16	8	8	9	9	58
13	14	20	12	16	10	14	86
14	3	3	2	10	6	6	30
15	6	4	9	8	.....	8	35
16	3	2	3	2	7	2	19
17	4	4	6	3	3	5	25
18	2	4	1	6	9	9	31
19	1	6	5	2	5	8	27
20	3	2	4	4	6	2	21
21	3	3	3	5	12	5	31
22	.....	5	1	2	5	1	14
23	2	6	5	1	3	.....	17
24	1	5	3	6	8	5	28
25	4	.....	.....	2	1	2	9
26	2	7	3	2	2	.....	16
Unknown	1	.....	1	.....	.....	.....	2
Totals	142	217	162	194	192	215	1,122

ARE YOU AWARE THAT

Intelligent motherhood conserves the nation's best crop?

Heavy eating, like heavy drinking, shortens life?

Many a severe cold ends in tuberculosis?

Neglected adenoids and defective teeth in childhood menace adult health?

SOME OBSERVATIONS.

A traveling man who was rather skeptical about Americans being clean people kept a record of the things he saw in one day which he considered unclean and insanitary. Here are some that he noticed, and he also records that he saw others unmentionable.

A waiter taking orders twisting his moustache, and later scratching his head and then handling the food and dishes without washing his hands.

A waitress (in midsummer) carrying a napkin under her arm and then wiping a plate with it.

A man seen to leave a toilet, pass a washbowl without using it, and go straight to the dining table.

A baker put his finger to his tongue and then picked up the sheet of paper and wrapped the bread in it.

The street car conductor added a certain amount of filth to each transfer by licking his finger before peeling the clip from the book.

Many ladies take coins from their purses, place them in their mouths prior to paying the street car fare. What can be more dirty than coins which have been handled by every one, or dropped on the street, floor, etc.?

The grocer picked up a paper bag and blew in it to open it before putting in the sugar. Of course, the bag was polluted with his breath when the sugar went into it.

Almost every diner in the restaurant handled the toothpicks.

The cigar purchaser handled many cigars before he bought one. He then put it in his mouth before putting it in the common clipper on the counter.

Several coughing and sneezing before they used their handkerchiefs, and one dispensing with the handkerchief entirely and substituting his hands.

A deplorable lack of clean hands, and many things "too numerous to mention."—*Portland, Ore., Health Bulletin.*

A RECORD RATE IN INFANT MORTALITY.

It has been customary for health officers for a great many years to look to New Zealand as a leader in baby saving and for statisticians to make comparisons with that country when compiling statistics in regard to infant mortality in American cities. There is a good and sufficient reason for this inasmuch as New Zealand maintains a baby death rate that is less than half of the lowest rate of any American city.

Now comes a report from England and substantiated by the French Academy of Medicine which relates the story of a small French commune where the death rate of infants for ten years has been 0.

For this period of ten years not one child under one year of age had died and not a single mother had died in childbirth. For the preceding ninety years the infant mortality rate ranged from 20 to 30 per 100 except during one period, 1854–1864, when it fell to 15 per hundred.

The low rates are attributed to the work of two men, father and son, mayors of the commune at different times. Neither father nor son knew anything about medicine when they went into office. The son became so interested in baby saving that he studied medicine after he went into office and the measures which he has introduced in Villiers-le-Duc include the following: Every pregnant woman, married or unmarried, lacking the means to provide for her own welfare and that of her child, has a right to assistance from the village authorities, for which she must apply before the seventh month. The midwife selected by the woman must make an examination, and, if she finds albuminuria, dangerous presentation or other untoward condition, must notify the village authorities, who shall then provide the woman with the services of a physician to be selected by her. The mother is to receive a grant for the six days following her confinement, provided she remains in bed. Nurses or mothers who can show healthy nurslings a year old are also entitled to municipal grants. Other regulations provide for the sterilization of milk and for the welfare of infants placed out to nurse.

REPORT OF THE HEALTH UNIT FOR THE MONTH OF AUGUST, 1916.

Visits by medical inspector:	
Contagious	32
Tuberculosis	16
Ophthalmia	17
Miscellaneous	52
Total	117
Cases visited by nurses:	
Medical	168
Babies	1,263
Total	1,431
Defective sanitary conditions found in tenement houses,	24
District physicians' calls	63

Instructive District Nursing Association.

Visits made by nurses	690

Baby Hygiene Association.

Total number of babies cared for	139
New babies admitted	29
Babies readmitted	4
Conferences held	4
Total conference attendance	252
Home visits by nurses	534

Associated and Hebrew Federated Charities.

Cases investigated and assisted	12

Consumptives' Hospital Department.

Visits made by nurses	229

MEETINGS.

The seventh annual meeting of the American Association for Study and Prevention of Infant Mortality will be held at Milwaukee October 19–21, 1916.

The subjects to be discussed include: Governmental activities — Federal, State and Municipal — in relation to infant welfare. Care available for mothers and babies in rural communities. Standards for infant welfare nursing. Morbidity and mortality in infancy from measles and pertussis.

SUMMARY OF VITAL STATISTICS.

There were 1,129 deaths reported in the five weeks ending September 2, against 1,024 in the corresponding period last year, a death rate of 15.53 against 14.28.

Reported deaths of nonresidents numbered 179 against 134 last year.

Of deaths from reportable diseases the principal decreases were:

Diphtheria	14
Whooping cough	12
Typhoid fever	4
Scarlet fever	3

and the principal increases were:

Anterior poliomyelitis	19
Tuberculosis (all forms)	16
Measles	10

Other important differences were as follows:

Decreases:	
Diarrhea and enteritis (under 2 years)	12
Rheumatism	4
Increases:	
Heart disease and Bright's disease	31
Accidental and violent	27
Premature births	10
Cancer	9
Other causes	29

There were 30 more deaths under 1 year, 11 more under 5 years, and 1 more over 60 years.

MORTALITY FOR THE FIVE WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	1,024	1,129
Nonresidents	134	179
Rate	14.28	15.53
Corrected rate (nonresidents deducted)	12.24	13.07
Deaths under 1 year	232	262
Deaths under 2 years	295	309
Deaths under 5 years	341	352
Deaths over 60 years	253	254

CAUSES OF DEATH.

	1915.	1916.
Anterior poliomyelitis	1	20
Actinomycosis	1	—
Cerebrospinal meningitis	4	1
Diphtheria	19	5
Measles	4	14

	1915.	1916.
Scarlet fever	3	—
Tetanus	—	2
Tuberculosis (all forms)	108	124
Typhoid fever	7	3
Whooping cough	14	6
Pellagra	1	2
Accidental and violent	73	100
Heart disease, endocarditis, pericarditis and nephritis	177	208
Bronchitis	8	6
Cancer	68	77
Cholera morbus	—	1
Diarrhea and enteritis (under 2 years)	125	113
Diarrhea and enteritis (2 years and over)	13	11
Dysentery	4	6
Erysipelas	3	3
Meningitis and encephalitis	6	7
Old age	1	2
Pneumonia	74	73
Premature birth	36	46
Puerperal diseases	11	11
Rheumatism	4	0
Other causes	259	288

The following is a Summary of the Work Done by the Different Divisions in the Department for the Five Weeks Ending September 2, 1916:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	159	208	5	19	31	38	1	6
Scarlet fever	51	110	0	3	25	17	0	2
Measles	163	125	14	4	5	0	1	0
Typhoid fever	18	63	3	7	1	8	0	0
Whooping cough	116	257	6	14	0	2	0	0
Tuberculosis (all forms)	276	310	124	108	16	24	17	10

CENTRAL DIVISION.

Legal notices authorized	775
Prosecutions authorized	15
Hearings	2
Premises ordered vacated	17
Miscellaneous orders	4
Application Lying-in Hospital granted	1
Application Lying-in Hospital refused	1

Licenses — Permits.

Vehicles inspected and approved	137
Milk	126
Licenses to peddle fruit and vegetables	75
Manicure — Massage	24
Hens	18
Dump	2
Slaughtering establishment assigned	1
Numbers assigned	102
License revoked	1
Stable permit granted	1
Court cases	11
Fines	$68
Stable permits revoked	2

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	1,945
Antitoxin given	22
Deaths investigated	31
Cases brought to Boston for treatment	75
Vaccinations	30
Vaccination certificates	2
Patients forcibly removed to hospitals	7
Antityphoid vaccine administered	13

Public Health Nursing.

Communicable disease visits	1,945
Number of revisits (infants)	14,100
Total visits by nurses	16,045

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	775
Tuberculosis	458
Typhoid	169
Syphilis	270
Gonorrhea	256
Other examinations *	171
Bacteriological milk examinations	508
Bacteriological ice cream examinations	39
Bacteriological water examination	1

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	589
Calves inspected	654
Swine inspected	5,124
Animals condemned, whole	4
Parts condemned	527

* Examination of rats, 88; Genito-Urinary Tuberculosis, 7; K. L. virulence, 1; Spinal Fluid, 2; Malaria, 31; Leprosy, 1; paratyphoids, 4; Ophthalmia, 37.

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	1,124
Bacteriological examinations of milk	502
Bacteriological examinations of ice cream	9
Chemical examinations of vinegar	79
Chemical examinations of butter and cheese	7
Chemical examinations of ice cream	16
Number of court cases	33
Fines	$450.02

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	171½ pounds	Olives	50 gallons
Beef	196 pounds	Flour	10 pounds
Pork	4 pounds	Beans	12 pounds
Corned beef	60 pounds	Rice	12 pounds
Miscellaneous meats,	148 pounds	Tapioca	12 pounds
Hamburg steak	1 pound	Sweetbread	82 pounds
Shoulder	19 pounds	Bread	3 pounds
Lamb	30 pounds	Peas	30 pounds
Blood pudding	7 pounds	Cereals	35 pkgs.
Veal	282½ pounds	Tryphosa	60 pkgs.
Tongue	6½ pounds	Eggs	30 dozen
Shrimp	90 gallons	Potatoes	1,660 pounds
Mackerel	450 pounds	Stores examined	450
Codfish	204 pounds	Prosecutions	8
Salt fish	33 pounds	Fines	$475
Salmon	145 pounds		

SANITARY INSPECTION.

New reports	4,277
New tenement house reports	17
Legal notices recommended	775
Reinspections	4,322
Nuisances reported	6,205
Complaints investigated	1,246
Number of court cases	16
Fines	$375

MORBIDITY AND MORTALITY FOR 35 WEEKS OF 1916.

	1915.	1916.
Total deaths	8,520	9,139
Nonresident deaths	1,143	1,251
Deaths under 1 year of age	1,366	1,462
Pneumonia	1,071	1,242
Cancer	637	600
Heart disease	1,150	1,257
Diarrhea and enteritis under 2 years	250	222

DEATHS FROM COMMUNICABLE DISEASES FOR SAME PERIOD.

	1915.	1916.	1916. Non-residents.
Diphtheria	165	128	35
Scarlet fever	74	33	16
Measles	32	88	5
Typhoid fever	28	12	1
Whooping cough	63	50	2
Tuberculosis	778	770	74

CASES OF COMMUNICABLE DISEASES REPORTED.

(35 Weeks.)

	1915.	1916.	1916. Non-residents.
Diphtheria	2,054	1,746	276
Scarlet fever	2,498	1,494	310
Measles	4,779	5,086	87
Typhoid fever	214	98	5
Whooping cough	1,410	1,270	19
Tuberculosis	2,050	1,895	141

MONTHLY METEOROLOGICAL SUMMARY, AUGUST.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.98; highest, 30.26, date, 29; lowest, 29.58; date, 8.

TEMPERATURE.

Highest, 95; date, 8; lowest, 54; date, 29; greatest daily range, 35; date, 21; least daily range, 4; date, 10; normal for month, 68.9°.

PRECIPITATION.

Total this month, 2.19; snowfall, 0.0; greatest precipitation in 24 hours, 1.10; date, 28; snow on the ground at end of month, 0.0; normal for this month, 4.03.

WIND.

Prevailing direction, southwest; total movement, 6,233 miles; average hourly velocity, 8.4; maximum velocity (for five minutes), 26 miles per hour, from west, on 14th.

WEATHER.

Number of days clear, 18; partly cloudy, 7; cloudy, 6; on which .01 inch or more of precipitation occurred, 9.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 28; halos: solar, 0; lunar, 16; hail, 13; sleet, 0; fog, 9, 18; thunderstorms, 8, 23, 28; frost: light, 0; heavy, 0; killing, 0.

The Third New England Conference of the National Association for the Study and Prevention of Tuberculosis will be held in New Haven, Conn., October 12–13, 1916.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

ALLIED PRINTING TRADES LABEL UNION COUNCIL CANTON, MASS.

SEPTEMBER, 1916

Rec'd
OCT 10 1916
B P. L

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.

Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the reporting of cases of communicable diseases, issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

FREE WASSERMANN TESTS.

The Bacteriological Laboratory is prepared to examine blood specimens by the Wassermann test for syphilis free of expense. Tests are made each Tuesday, Wednesday, Thursday and Friday.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, SEPTEMBER, 1916. NO. 9

Good health should always be the first consideration.

ANTERIOR POLIOMYELITIS SITUATION IN BOSTON.

Up to and including October 23 there have been reported to this department 531 cases of anterior poliomyelitis and 117 deaths. Of these 531 cases 125 have been brought into Boston from outside cities and towns. The 406 found in Boston are in the following sections of the city:

East Boston	75	South Boston	46
Hyde Park	39	Brighton	3
Dorchester	61	South End	28
Charlestown	41	West End	46
Jamaica Plain	12	North End	16
Roxbury	38	Boston Harbor	1
From outside cities and towns			125

The cases have been found in the following age periods:

Under one year	64
Under two years	137
Under three years	83
Under four years	51
Under five years	30
Between five and ten years	21
Over ten years	20

Every case of this disease in Boston is immediately removed to the hospital, if the condition of the patient warrants. As soon as the patient is removed, premises are disinfected and all contacts kept under supervision for a period of three weeks.

PUBLIC HEALTH LIMITATIONS.

The function of the public health authorities is primarily the prevention of disease. At one time it was confined to the prevention of communicable diseases, especially in times of epidemics, but in recent years the field of public hygiene has been increased to cover all activities for disease prevention, and for the promotion of health.

At the same time that the field of work has increased and the knowledge of proper methods has grown continually the equipment and power of the health authorities has not in most instances kept pace with their growing opportunities.

It is to this fact that the limitations of public health administration are chiefly due.

The efficiency of the Health Department may be limited by law, either the department may not have enough power in its proper field, or it may have too many administrative functions entrusted to it that are not primarily health protection functions.

It has been well said that "the powers and duties of health organizations should be clearly defined and relate strictly to the protection of the public health. Furthermore they should be distinct organizations and not combined with those having to do with charities and corrections and other welfare functions which are just as definite as health functions, but sometimes confused with them. The business of health organizations is primarily the reduction of morbidity and mortality. They should be expected to carry out measures devised for this purpose, but should not have imposed on them all sorts of functions having only a most indirect health bearing. Emergency legislation in cities has been placed on the statute books without uniformity, often illogical, without sound basis of fact and, of course, impractical of administration.

Health administration is also limited and very seriously limited by lack of proper financial support and in most cases cities are not allowed sufficient appropriation to properly carry on the work of a health department.

In this country there is a wide variance in amounts appropriated for health department administration. There is Easton, Pa., with 2 cents per capita and Seattle with 98 cents per capita. The average of all cities is about 22 cents. The large cities in the country spend the largest amount per capita. New York City appropriates about 58 cents per capita for this work. Boston spent 40.3 cents per capita in 1913.

Although Seattle is a new city, well planned and laid out, and its population consists mostly of young and sturdy people, yet it must be admitted, even with all these things in its favor, that its mortality and morbidity rates are wonderful. Think of this city of 330,834 population having but two deaths from diphtheria, 205 deaths from tuberculosis, 195 deaths from pneumonia, 1 death from scarlet fever, and but 8 deaths from typhoid fever; 20 deaths in children under two years of age from diarrhea and enteritis, 263 deaths in children under 1 year from all causes. These are the figures for 1915. It is apparent that the motto, "Public health is purchasable," comes pretty near hitting the mark in Seattle at least, even though its per capita expense for public health administration is almost the highest of any American city.

We must agree with the man who wrote, "Money appropriated for public health work is an investment, not an expense."

A further and most fundamental limitation of the work of health administration is found in the ignorance and indifference of the average citizen. Legal and financial handicaps may be due largely to this public indifference, but even with these handicaps removed the attitude of the citizens to the work of the Health Department has power to help or hinder.

"The attitude of the average layman toward the health department is one of indifference. He feels that someone is paid a salary for safeguarding the public health, and that the citizen has no obligation or concern in the matter. He does not know that the most competent health officer is powerless to reduce disease beyond a certain point without his help. . . . Expert competent health officers adequately paid, ample health appropriations and strong laws will not suffice to eradicate disease unless backed by intelligent public opinion and by the hearty coöperation of the individual citizen."

If limited in power, finances and influences the public health administration must of necessity be limited in its accomplishments.

OPENING OF THE SCHOOLS.

The total number of children present in the elementary schools on the opening day was 72,151, the number absent, 18,751, the total enrollment being 90,902 against 92,999 last year.

The proportion of absentees was greatest in Dorchester, Roxbury and Hyde Park and least in the West and North Ends.

DIPHTHERIA AND THE PUBLIC HEALTH LABORATORY.

The diphtheria bacillus usually attacks the mucous membrane of the victim's throat, producing at first but slight soreness and a mild fever. Later in typical cases, a membrane is formed which may extend into the larynx, interfering mechanically with the breathing, and more serious still, soluble poisons are formed which go through the whole system, producing great prostration. Later, after apparent recovery, the slow effect of these poisons upon the nervous system may cause paralysis. The initial symptoms are much like tonsilitis, but usually not so severe, and the illness varies from a very mild type to that which is severe or even fatal.

These variations may be caused by differences in the virulence of the infecting organism or by differences in resistance of the person attacked and the illness is slight or severe, depending on these factors.

The physician who asserts that he can always recognize diphtheria from clinical observation without laboratory tests is either self-deceived or he is attempting to deceive others. The best informed among the profession confess their dependence upon the bacteriological tests. Of course there are perfectly definite cases of clinical diphtheria about which there is no question in the mind of the attending physician and which need no confirmatory tests; but there are many more cases which cannot be distinguished clinically from tonsilitis. Even the presence of a membrane is not a sure indication, for it must be remembered that a severe streptococcus infection is occasionally accompanied by membrane formation and that the organisms of Vincent's angina may cause a membrane resembling the diphtheria membrane very closely.

The careful physician takes cultures from all "sore throat" cases, even if the presence of diphtheria is not suspected, as a safeguard against the possibility of an unrecognized infection. If this was the custom everywhere the disease would more frequently be discovered in its earliest stages and antitoxin administered in time to reap its utmost benefits. Antitoxin is much more efficacious if given early in the course of the disease before the poisons generated by the diphtheria bacilli become intimately united with the body cells.

The usual laboratory routine for a diphtheria examination requires about fifteen hours' incubation of the culture at the body temperature. Many laboratories, on request, make an

examination, without delay, of the material remaining on the swab which has been used in taking a culture. A large percentage of cases of diphtheria may be diagnosed in this way and valuable time saved.

The aid of the laboratory in the release of patients is quite necessary since it frequently happens that a person who has entirely recovered from the disease is still a carrier of virulent diphtheria bacilli and a menace to all susceptible persons with whom he comes in contact. By requiring two successive negative cultures with at least twenty-four hours interval between before releasing the patient from quarantine the community is assured of a reasonable protection from exposure to the disease.

ANTERIOR POLIOMYELITIS.

Infantile Paralysis.

To prevent contagion the following precautions are to be observed:

Keep your house or your apartment in a state of absolute **cleanliness.**

Wipe the woodwork every day with a damp cloth.

Never sweep the floors **dry;** use sawdust, old tea leaves or fragments of newspapers all soaked in water.

Keep the **flies** out of the house with mosquito nets; kill the flies in the house.

Never allow **garbage** to accumulate; keep it in close covered receptacles.

Never allow **rubbish** to accumulate in your rooms.

Kill all **bedbugs, roaches** and **body lice.**

Give your special attention to the **cleanliness** of the body. Bathe your children once a day; do not allow anything but clean linen to be worn next to their skin.

Children should be left to play in the **open.**

Children should never be **kissed.**

Take your children to **parks** and **playgrounds,** but do not let them play in large groups.

Shower baths are excellent.

Give to your children a plain and **wholesome nourishment,** including much milk and vegetables.

Keep the milk **clean, covered** and **cool;** do not allow flies to contaminate it.

Wash all foods that are consumed raw.

HEALTH ADVICE IN MOTION PICTURE HOUSES.

During the month this department sent to the proprietors of all moving picture houses in this city a letter requesting their coöperation in a campaign to educate the public in hygiene and sanitation. At this time, especially, when anterior poliomyelitis is prevalent it was felt that much good would be accomplished in this way and accordingly a number of different slides were prepared for each theater with simple rules tending towards the promotion of health. In most cases a set of four slides were sent to each moving picture house with a request that the slides be run at each performance. In East Boston and Hyde Park different sets were sent, in as much as most of the cases were reported from these sections of the city.

Advice and instruction towards cleanliness of premises, stores, foodstuffs and persons were printed on some of the slides. Caution to parents in regard to the care of their children, proper disposal of garbage and warnings not to purchase in dirty stores or dirty merchandise had a place on others.

There is nothing on the slides that will offend the sensibilities of anyone. Medical or technical phrases or gruesome pictures of children suffering or dying from disease are not portrayed, only simple suggestions and advice that all of us may well remember and practise at all times and especially when disease is prevalent.

It seems that this method of education will have its attractive features, although it is realized that it has its limitations and also that a motion picture slide is limited in space. It is also thought that the short, terse statement of advice and instruction is best suited for this means of publicity education. Constant viewing of this advice by children and grown-ups cannot fail to have its effect on a great majority of the people.

If all concerned would use a little care and discretion much could be accomplished to prevent disease from entering the home and a consequent carrying of the infection to others. Cleanliness is the slogan and if people would practise it they would do much towards helping themselves, others and their city in general.

The Kent (Tuberculosis) Bill introduced in the National House of Representatives was reported to the House May 11, 1916. The bill that was reported to the Senate was practically identical with the Kent Bill, introduced by Senator Norris. Neither house of Congress has taken action on the respective bills.

CARTOONISTS TO AID.

In connection with the campaign of education through the medium of the motion picture houses the Health Commissioner sent the following letter to his Honor the Mayor:

Health Department, Boston,
Office of the Commissioner.

Hon. James M. Curley,
Mayor of Boston:

Sir,— The moving picture film as a means of focussing public attention on the necessity for work being conducted to promote and protect public health is of tremendous value, and in view of the fact that most picture houses in the city have agreed to cooperate with the Health Department in the protection of the public from this dread scourge, I respectfully request that you invite the cartoonists connected with the various papers in Boston to submit suitable cartoons that might be used to advantage in connection with the health campaign now being waged for the protection of the public.

Respectfully,

F. X. Mahoney, M.D.
Health Commissioner.

The Medical Director of Schools has sent to all physicians, nurses, principals and teachers in the Boston schools the following plans and instructions as precautionary measures in the prevention of anterior poliomyelitis.

PLAN FOR COMBATING INFANTILE PARALYSIS AT BEGINNING OF SCHOOL YEAR.

Prepared by the Director of Medical Inspection and approved by the Superintendent of Schools.

1. Daily health bulletin for guidance of principals, physicians and nurses.

2. Special care should be exercised in the preliminary survey for detection of contagious diseases.

3. Every effort should be made by principal or teacher to ascertain if pupil has been exposed. If there is a history of exposure, child should be promptly referred to school physician.

4. Instructions to teachers on essential points of acute anterior poliomyelitis.

5. Instructions to teachers of kindergartens with reference to the danger of personal contact, sharing toys, sweets, pencils, articles of busy work, putty, etc.

6. All school buildings shall be visited every day. In the larger districts, physicians and nurses may so divide their time that this policy may be adopted.

7. Unity of action. The earnest coöperation of teachers, physicians and nurses is necessary for success.

8. The maintenance of good general health, observance of hygienic habits, personal cleanliness and good sanitary conditions, mean the avoidance of germs and make possible the prevention of disease.

THE SCHOOL COMMITTEE OF THE CITY OF BOSTON,
DEPARTMENT OF MEDICAL INSPECTION.

To Principals of Schools and Districts,— Acute anterior poliomyelitis (infantile paralysis) occurs generally before the end of the third year, diminishing to the fifth year, and rarely occurring in adult life.

No class is assured of exemption; neither the strong nor the weak, the rich nor the poor. Certain authorities claim that it occurs more frequently in the male than in the female. It is more prevalent in hot than in cold weather.

It is undoubtedly due to some specific bacillus not yet isolated. The stable fly was thought formerly to convey infection but recently this theory has been apparently disproved.

There are no distinctive premonitory symptoms, as in other contagious diseases, to serve as a guide for its detection.

The incubation period is from five to ten days. The onset is usually abrupt and accompanied by fever, rising temperature and excessive sensitiveness of the skin; there is often vomiting and diarrhea; the patient is dull and drowsy.

There are three sources of infection; those ill with the disease, convalescents, carriers (persons harboring the disease, but giving no clinical evidence).

The germ exists in the discharges from throat, nose and intestines and is conveyed into the body through the mucous membranes of nose and throat. The nasal discharge is the most probable source of infection.

There is rarely a complete recovery, a permanent deformity usually resulting.

Owing to the prevalence of infantile paralysis, special vigilance should be exercised by medical inspectors in detecting suspicious cases and promptly excluding children who have been exposed to the disease.

The inspection force will consist of forty school physicians, thirty-eight nurses and approximately three thousand teachers. The teacher is an important element of medical inspection force and should be instructed to exercise great care in the preliminary survey of children at the opening of school.

The daily bulletin of the Health Department has been issued to the principals and school physicians since September first, enabling them to keep in touch with the situation.

Formerly acute anterior poliomyelitis was considered not dangerous to life, and recent writers have made this statement; but the fatalities (more than 20 per cent) of the present epidemic have disproved this.

The hope of medical inspection in combating the disease is in its early detection and the prompt exclusion of those who have been exposed to it.

While the nature of the infection is known, and while it is maintained that the disease is transmitted by contact, the evidence seems conflicting, since, including so-called abortive cases, in the majority of instances there is but one case in a family, even though there may be from two to six or eight or more children in the household, and the contact of the most intimate nature, while other cases occur in remote, isolated sections, with no discoverable evidence of contact. Manifestly, in view of such experiences, it is reasonable to assume that some further factor at present unknown enters into the transmission of this disease, and that it is much less readily transmitted than measles, whooping cough, diphtheria, etc. (Public Health Bulletin, State Department Health, August, 1916.)

With the present limited knowledge of infantile paralysis, it is advisable to pursue the methods of prevention employed in ordinary contagious diseases.

Children should be given instruction on the cause and prevention of contagion. The avoidance of personal contact should be emphasized, viz., sharing candy, gum, pencils, using the same drinking utensils, etc.

During the prevalence of disease, moving picture shows and other places of public assembly should be avoided.

Very truly yours,

WILLIAM H. DEVINE, M. D.,
Director of Medical Inspection.

LIVING IN CONGESTED DISTRICTS.

In large cities of the country much of the population is obliged to live in the tenement districts. It is not convenient for everyone to live out of town, and others, on account of business reasons, are obliged to remain in the city. In the cities we have large numbers of people living in a congested and unhygienic neighborhood, often on account of carelessness, neglect and laziness to look for a better yet not necessarily more expensive tenement.

If it is essential that one choose a tenement in a neighborhood that is congested it would be well to search thoroughly in order to find a place that is healthy and safe.

Each tenement should be provided with a sink and running water, separate toilet, bath if possible, and a clean back yard where the children may play. The sleeping rooms should have plenty of light and air, and fire escapes that are not crowded with rubbish and obstructed by boxes, etc. See that the tenement is clean in every respect and free from vermin. These conditions are present in a great many houses and are not strictly confined to houses that have wonderful exteriors or that are expensively built.

Such tenements may be had if you will take your time in searching and if unable to find suitable accommodations in one neighborhood try another.

Diseases such as pneumonia, bronchitis and tuberculosis are often referred to as "house diseases."

Bad housing conditions exist in "houses that are

Poorly lighted.
Unventilated.
Damp.
Imperfectly drained.
Exposed to undue fire peril.
In bad repair.
Vermin infested.
Disease infected.
With uncleanly surroundings.
With insufficient water supply.
With defective plumbing.
With overcrowded rooms.
With cellar tenements.
Without toilet accommodations adequate for comfort, cleanliness and privacy."

MEETINGS IN OCTOBER.

Massachusetts Association of Boards of Health, Holyoke, Mass., October 19.

Fifth National Conference on Housing, Providence, R. I., October 9, 10, 11.

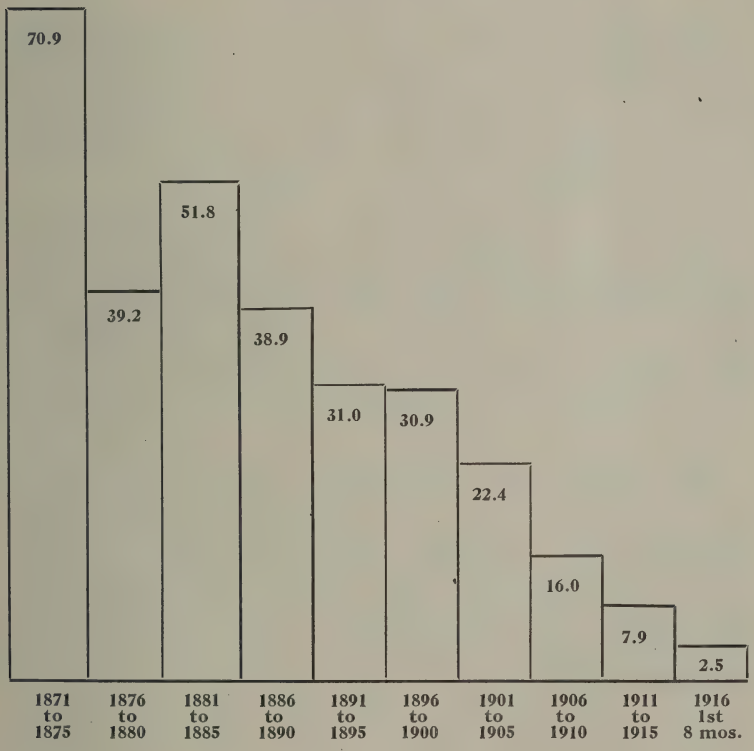
New England Tuberculosis Conference, New Haven, Conn., October 12, 13.

Seventh Annual Meeting of American Association for Study and Prevention of Infant Mortality, Milwaukee, October 19 to 21.

American Public Health Association Meeting in Cincinnati, October 24 to 27.

DECLINE IN TYPHOID FEVER.

Death Rate in Boston, per 100,000 Population, by Five-year Periods Since 1871.



NOTICE TO PHYSICIANS.

The Department again desires to call the attention of the profession to the importance of early diagnosis in all suspected or doubtful cases of Anterior Poliomyelitis.

Upon the request of the attending physician this Department will send a physician to perform a lumbar puncture in any case where the diagnosis is in doubt.

This office is open every day in the year, Sundays and holidays included, from 9 a. m. until 11 p. m., and the 'phone number is Fort Hill 5100. In instances of this sort charges may be reversed.

CITIES WHERE ANTERIOR POLIOMYETITIS IS PREVALENT, POPULATION, NUMBER OF CASES AND DEATHS, DEATH RATE AND PERCENTAGE OF DEATHS TO CASES.

City.	*Population.	Cases.	Deaths.	Death Rate Per 100,000 Population.	Percentage of Deaths to Cases.
New York	5,625,000	9,051	2,300	40.9	25.4
Chicago	2,437,526	249	42	1.7	16.4
Philadelphia	1,700,000	863	259	15.2	30.0
Boston	**748,431**	**233**	**61**	**8.1**	**26.1**
Baltimore	583,000	111	44	7.5	39.6
Jersey City	300,000	182	40	13.3	27.4
Toledo	187,000	101	22	11.7	21.7
Trenton	104,000	127	40	38.4	31.4

* Estimated for 1915.

CONDEMNATION OF GRAPE FRUIT.

Inspectors of the food inspection of this department recently seized and destroyed fifty boxes, weight 4,000 pounds, of grape fruit, consigned by the Porto Rican Fruit Exchange to a large fruit concern in this city.

This fruit was analyzed by the chemist of the United States Bureau of Chemistry at Boston and also by the chemist of this department, and both found the ratio of acid to soluble solids to be 1 to 5.54. The fruit was hard and lacking in normal amount of juice. The entire lot was condemned as being immature and unfit for food.

The condition of the fruit was attributed to a severe tropical storm in Porto Rico which shook an enormous amount of fruit from the trees. This fruit was immature and although the skins can be yellowed to some degree by using steam the fruit itself cannot be artificially ripened.

The United States Department of Agriculture has warned growers and shippers of grape fruit that the shipment in interstate commerce of grape fruit sweated either before or during shipment is a violation of the pure food law.

RAISING THE BAN ON MOVIES.

As a result of the outbreak of anterior poliomyelitis and in order to take every safeguard necessary for the protection of the public, his Honor the Mayor issued an order forbidding the admission of children under sixteen years of age into mov-

ing picture houses. This applied to the East Boston and Hyde Park sections of the city.

It was soon found out that this order did not have the effect intended, in as much as it did not deter children from going to other parts of the city to attend picture shows and did not afford a reasonable protection to the city as a whole.

This order was changed so that it covered all theaters of this kind in Boston. The proprietors were assured that this restriction would be removed as soon as practicable.

The order has now been amended and applies only to children under eight years of age. It is hoped that within a short time the number of cases of anterior poliomyelitis will decrease and the picture shows will again be open to all.

This last order has now been rescinded, October 23, 1916.

WEATHER AND POLIOMYELITIS.

With the coming of cooler weather it is hoped that anterior poliomyelitis will gradually disappear. It is not absolutely a summer disease, however, in as much as outbreaks and epidemics have occurred in Sweden and in England during the winter season. The last large epidemic in the city of Gothenberg began in October and ended in March of the following year. This fact inclines some scientists to doubt the transmission of the disease by flies or insects.

SUGGESTIONS.

Sickness lowers earning capacity.

Disease is the nation's greatest burden.

Sunlight and sanitation make better babies.

Moderate exercise in the open air prolongs life.

It is dangerous to put anything into the mouth except food and drink.

Do not handle foodstuffs when you go to the store to purchase.

Caution the children against spitting in the home or in public places. Provide them with a handkerchief.

Even though cooler weather is here do not become a "shut in."

Keep in the open, get all the fresh air possible, do not overclothe yourself, exercise and there will be fewer colds and less pneumonia this fall and winter.

Remember that it is in the cold weather that pneumonia increases. If you keep in good physical condition you will be able to successfully combat coughs, colds and pneumonia.

IT COSTS NOTHING TO BE CLEAN - IT COSTS MONEY FOR SICKNESS

REPORT OF THE HEALTH UNIT FOR THE MONTH OF SEPTEMBER, 1916.

Visits by medical inspector:	
Contagious	36
Tuberculosis	12
Ophthalmia	12
Miscellaneous	8
Total	68
Cases visited by nurses:	
Medical	418
Babies	381
Total	599
Defective sanitary conditions found in tenement houses,	25
District physicians' calls	76

Instructive District Nursing Association.

Visits made by nurses	524

Baby Hygiene Association.

Total number of babies cared for	153
New babies admitted	20
Babies readmitted	8
Conferences held	5
Total conference attendance	314
Home visits by nurses	630

Associated and Hebrew Federated Charities.

Cases investigated and assisted	6

Consumptives' Hospital Department.

Visits made by nurses	357

DO YOU KNOW THAT

Health brings happiness — sickness sorrow?

Health is a credit with the bank of nature?

A clean garbage can is a good example to the family?

Filth breeds flies — flies carry fever?

Slouchy postures menace health?

SUMMARY OF VITAL STATISTICS.

There were 915 deaths reported in the four weeks ending September 30, against 817 in the corresponding period last year, a death rate of 15.68 against 14.23.

Reported deaths of nonresidents numbered 122 against 126 last year.

Of deaths from reportable diseases the principal decreases were:

Diphtheria	1
Typhoid fever	2

and the principal increases were:

Anterior poliomyelitis	52
Tuberculosis (all forms)	47
Measles	3

Other important differences were as follows:

Decreases:	
Diarrhea and enteritis (under 2 years)	20
Accidental and violent	4
Increases:	
Heart disease and nephritis	4
Pneumonia	10
Premature births	4
Cancer	8
Other causes	29

There were 2 more deaths under 1 year, 25 more under 5 years, and 5 more over 60 years.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	817	915
Nonresidents	126	122
Rate	14.23	15.68
Corrected rate (nonresidents deducted)	12.04	13.59
Deaths under 1 year	204	206
Deaths under 2 years	238	246
Deaths under 5 years	266	291
Deaths over 60 years	212	217

CAUSES OF DEATH.

	1915.	1916.
Anterior poliomyelitis	1	53
Cerebrospinal meningitis	1	3
Diphtheria	10	9
Measles	—	3

	1915.	1916.
Scarlet fever	1	1
Tetanus	2	1
Tuberculosis (all forms)	76	123
Typhoid fever	3	1
Whooping cough	10	10
Pellagra	—	1
Accidental and violent	71	67
Heart disease, endocarditis, pericarditis and nephritis	145	149
Bronchitis	4	6
Cancer	71	79
Diarrhea and enteritis (under 2 years)	98	79
Diarrhea and enteritis (2 years and over)	7	78
Dysentery	5	4
Erysipelas	—	1
Meningitis and encephalitis	4	4
Old age	2	8
Pneumonia	56	66
Premature birth	22	26
Puerperal diseases	7	8
Rheumatism	3	—
Other causes	218	217

The following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending September 30, 1916:

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	123	178	9	10	41	29	1	3
Scarlet fever	43	81	1	1	11	11	1	1
Measles	42	45	3	0	0	0	0	0
Typhoid fever	43	54	1	3	1	4	0	1
Whooping cough	56	164	10	10	0	0	2	1
Tuberculosis (all forms)	221	232	123	76	16	13	13	7

CENTRAL DIVISION.

Legal notices authorized	881
Prosecutions authorized	21
Hearing	1
Premises ordered vacated	9
Miscellaneous orders	4
Applications Lying-in Hospital approved	6
Forcible removals ordered	62

Licenses — Permits.

Grease licenses	
Vehicles inspected and approved	355
Milk	95
Licenses to peddle fruit and vegetables	28
Manicure — Massage	13
Hens	19
Dump	1
Numbers assigned	44
License revoked	1
Stable permits revoked	3
Licenses renewed to remove grease, bones, etc.	79

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	2,534
Antitoxin given	13
Deaths investigated	14
Cases brought to Boston for treatment	63
Vaccinations	499
Vaccination certificates	450
Forcible removals recommended	62
Antityphoid vaccine administered	7

Public Health Nursing.

Communicable disease visits	2,442
Number of revisits (infants)	5,316
Total visits by nurses	7,758

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	710
Tuberculosis	304
Typhoid	172
Syphilis	212
Gonorrhea	435
Other examinations *	119
Bacteriological milk examinations	432
Bacteriological ice cream examinations	19
Bacteriological water examination	1

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	656
Calves inspected	541
Swine inspected	5,392
Sheep inspected	4
Animals condemned, whole	4
Parts condemned	574

* Examination of rats, 54; Genito-Urinary Tuberculosis, 5; Malaria, 18; paratyphoids, 8; Ophthalmia, 34.

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	693
Bacteriological examinations of milk	462
Bacteriological examinations of ice cream	19
Chemical examinations of vinegar	41
Chemical examinations of butter and cheese	17
Chemical examinations of ice cream	18
Number of court cases	44
Fines	$525

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	283 pounds	Pears	2 boxes
Halibut	7 pounds	Coffee	27 pounds
Corned beef	71 pounds	Hominy	24 pounds
Miscellaneous meats	148 pounds	Pickles	1 pound
Frankforts	20 pounds	Cheese	10 pounds
Giblets	23 pounds	Dressing	12 pounds
Lamb	235 pounds	Chow Chow	10 pounds
Veal	90 pounds	Biscuits	25 pounds
Pigs' feet	78 pounds	Corn starch	30 pounds
Mixed fish	100 pounds	Jelly	8 pounds
Salmon	210 pounds	Cake	100 pounds
Mackerel	100 pounds	Oranges	7 dozen
Miscellaneous fish	1,000 pounds	Pastry	5 pounds
Haddock	70 pounds	Macaroni	12 pounds
Bacon	4 pounds	Bread	12 loaves
Herring	5 pounds	Crackers	6 pounds
Miscellaneous:		Stores examined	304
Eggs	28 dozen	Prosecutions	11
Olives	65 pounds	Fines	$71
Beans	30 pounds		

SANITARY INSPECTION.

New reports	4,798
New tenement house reports	14
Legal notices recommended	881
Reinspections	4,676
Nuisances reported	5,296
Complaints investigated	1,076
Number of court cases	6
Fines	$25

MORBIDITY AND MORTALITY FOR 39 WEEKS OF 1916.

	1915.	1916
Total deaths	9,337	10,054
Nonresident deaths	1,269	1,373
Deaths under 1 year of age	1,570	1,668
Pneumonia	1,127	1,308
Cancer	708	679
Heart disease	1,245	1,355
Diarrhea and enteritis under 2 years	348	300

DEATHS FROM COMMUNICABLE DISEASES FOR SAME PERIOD.

	1915.	1916.	1916. Non-residents.
Diphtheria	175	137	36
Scarlet fever	75	34	17
Measles	32	91	5
Typhoid fever	31	13	1
Whooping cough	73	60	4
Tuberculosis	844	877	83

CASES OF COMMUNICABLE DISEASES REPORTED.

(39 Weeks.)

	1915.	1916.	1916. Non-residents.
Diphtheria	2,232	1,869	317
Scarlet fever	2,579	1,537	321
Measles	4,824	5,128	87
Typhoid fever	268	141	6
Whooping cough	1,574	1,326	19
Tuberculosis	2,254	2,094	157

MONTHLY METEOROLOGICAL SUMMARY, SEPTEMBER.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 30.05; highest, 30.54, date, 11; lowest, 29.68; date, 8.

TEMPERATURE.

Highest, 90; date, 14; lowest, 44; date, 30; greatest daily range, 28; date, 12; least daily range, 6; date, 6; normal for month, 62.7°.

PRECIPITATION.

Total this month, 1.90; snowfall, 0.0; greatest precipitation in 24 hours, 0.62; date, 28; snow on the ground at end of month, 0.0; normal for this month, 3.19.

WIND.

Prevailing direction, southwest; total movement, 6,934 miles; average hourly velocity, 9.6; maximum velocity (for five minutes), 31 miles per hour, from south, on 15th.

WEATHER.

Number of days clear, 14; partly cloudy, 12; cloudy, 4; on which .01 inch or more of precipitation occurred, 8.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 24; halos: solar, 25; lunar, 16; hail, 13; sleet, 0; fog, 9, 18; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

The number of deaths and the death rate of nonresidents thus far this year continues to increase in this city.

Heart disease will claim more deaths this year than in 1915.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

1559.

OCTOBER, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

Population	748,431		
Births	19,655	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.	
Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the reporting of cases of communicable diseases, issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

FREE WASSERMANN TESTS.

The Bacteriological Laboratory is prepared to examine blood specimens by the Wassermann test for syphilis free of expense. Tests are made each Tuesday, Wednesday and Thursday. Blood is drawn from patients in the laboratory each Monday, Tuesday, Wednesday and Thursday, from 2 to 4 p. m.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

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We suffer from disease through ignorance. We escape through knowledge.

RESULT OF THE SICKNESS SURVEY IN BOSTON.

Last July the Metropolitan Life Insurance Company began a sickness survey of Boston. This was the fourth of its kind in this country; the others have been conducted in Rochester, N. Y., Trenton, N. J., and a group of the larger cities in North Carolina. In all the surveys a number of searching tests indicated that the statistics collected were trustworthy indications of the approximate amount of sickness in the communities mentioned, but in Boston not only members of insured families were tabulated but also a considerable number of families not insured by the company, which, of course, makes the statistical results thoroughly representative.

Early returns revealed the fact that the results would be more satisfactory than in any of the other cities.

Aside from these surveys no significant data on sickness in American cities and towns has been available since the 1880 and 1890 censuses.

A survey of this kind is of tremendous value and importance to a community and is of great assistance to a health department, hospitals, dispensaries, the medical profession and the citizens of the community in general. It serves not only as a barometer of existing conditions but also as an indication that might well be considered by the citizens.

Although the results of the Boston survey are indeed gratifying it is also true that the percentage of sickness may be still further reduced. The Health Department does everything in its power to reduce infectious diseases to a minimum and the figures show this, but the individual himself must help out if we

are to reduce the total number of the principal diseases registered, such as rheumatism, organic diseases of the heart, tuberculosis of the lungs, diseases of the kidneys and diseases and conditions of the puerperal state. With the exception of tuberculosis, the Health Department has no control over the above diseases except to advise and to suggest modes of living which will help materially to reduce many of these diseases that are increasing every year, not only in Boston, but, generally, all over the country.

In its report the Metropolitan Life Insurance Company says, among other things:

"The City of Boston was chosen for this study because of its large and representative population, its geographical location and its varied industrial activity. Finally, the excellent medical facilities of Boston, including hospitals, dispensaries, a well-developed nursing association and other health and social agencies, confirmed our decision to make our study there. The survey was made during the two weeks beginning July 17 and 24, 1916.

"Much is due also to the fine coöperation extended by the city department of health, through Dr. Francis X. Mahoney, commissioner, and by the public Press and medical journals. The company's agents canvassed every part of the city, including the outlying sections of Dorchester, Roxbury and South Boston; indeed, the entire area of greater Boston was covered. Twenty thousand four hundred and ninety-seven families were canvassed and returns were made for 97,259 persons. This number is about 13 per cent of the total population of Greater Boston.

"In all 1,902 cases of sickness were recorded. This is equivalent to a rate of 19.6 persons sick in every 1,000 persons canvassed, or under 2 per cent. The sickness rate is fairly constant for each of the several districts of the city. The rate as a whole is distinctly lower than other surveys; the lowest previous rate being 23.1 per 1,000 for Rochester.

"Of the 1,902 cases of sickness discovered 1,747, or 91.9 per cent, were disabled for work, and 155, or 8.1 per cent, were reported sick but able to work.

"The proportion of cases of sickness receiving hospital treatment was larger in Boston than in any of the three areas previously surveyed. It was 17.7 per cent of the total sick as against 2.4 per cent in North Carolina and 10.7 per cent in Rochester.

"The sickness rate for males in Boston was 1.5 cases per 1,000

less than that registered for Rochester and 5.2 cases less per 1,000 than the rate for white males in North Carolina. The sickness rate for females in Boston (19.5 per 1,000) was 5.3 cases lower than in Rochester and 13.1 cases lower than the rate for white females in North Carolina.

"Organic diseases of the heart in Boston constituted 5.2 per cent of the total sickness registered, the rate being 93.6 per 100,000. The Boston rate for organic diseases of the heart approaches the one found in Rochester, but is about one third greater than the North Carolina rate. Tuberculosis of the lungs was found in 82 cases, or at the rate of 84.3 per 100,000. This is the lowest tuberculosis rate found so far in the several surveys. This constituted 4.7 per cent of the total sickness recorded among the group of sick persons unable to work. Cerebral hemorrhage, apoplexy and paralysis were present in 81 cases, or a rate of 83.3 per 100,000. The rate for this disease was lower in Boston than in North Carolina or Rochester.

"The rate for diseases of the kidneys and adnexa was the lowest of any of the cities. 'Colds' and diseases of the respiratory system were present to a lesser degree than in the other cities, but the North Carolina survey was taken in mid spring. Pneumonia in Boston was slightly higher than in Rochester but only one fourth as high as North Carolina's rate.

"Of the total number of cases of sickness 72.9 per cent had medical attendance, which was the best rate yet found. All the cancer and pneumonia cases found unable to work were under the care of physicians, and in tuberculosis the number being cared for was 91.5 per cent, other diseases under physicians' care varied from 50 to 75 per cent. Very nearly two thirds of the total cases of sickness were being treated by private physicians and the remainder under any kind of medical observation were treated by dispensary physicians.

"The medical care of tuberculosis cases is apparently well developed in Boston.

"Economic Loss from Sickness in Boston.

"On the basis of the sickness rate determined by the survey there were at least 5,880 males in Boston constantly sick and disabled. At 300 working days per year per individual there is a loss of 1,764,000 working days, or 6.5 working days per individual. This average may be compared with 7 days for Rochester, 7.6 days for North Carolina. The latest available figures

for males of working age in the local sick benefit societies of Germany, namely, for the year 1913, shows an average of 8.8 days of disability for work per year. On like basis with an estimated number of 6,237 females constantly sick means a loss of 1,871,100 working days, or an average of 6.5 days per individual per year. The corresponding for Rochester was 7.7 days, for North Carolina 10.2 days, and for Germany 9.8 days.

"Conclusions.

"The following are the principal findings of the survey:

"1. Close to 2 per cent of the population of Boston were found to be sick. This proportion is smaller than that registered in the surveys elsewhere.

"2. Slightly more than 90 per cent of the total cases of sickness involved disability for work.

"3. The principal diseases responsible for the sickness registered were rheumatism, organic diseases of the heart, tuberculosis of the lungs, diseases of the kidneys and diseases and conditions of the puerperal state.

"4. The proportion of cases sick less than one month up to the date of the survey was only 26.3 of the total. This was slightly higher than the finding for Rochester but considerably lower than North Carolina. The relatively small number of acute infectious diseases accounted for this condition.

"5. Of the total cases 72.9 received medical attention; this is a higher percentage than elsewhere. This finding reflects the excellent medical facilities of Boston. Hospitals and dispensaries provided a large proportion of the total amount of medical care.

"6. The economic loss resulting from sickness in Boston is considerable, involving the loss of earnings for about seven days per person per year."

A PRESCRIPTION.

Prevention of disease is now the first law in medicine. Preventive medicine owes a debt first to nature, in the form of sunlight, fresh air, pure food, personal cleanliness and moderate exercise. This combination alone forms a bulwark of defense against the inroads of any infectious disease.

These ingredients mixed, free to everyone, make the best prescription known and are incompatible with ill health.

Tuberculosis is contagious, preventable and curable.

ANTERIOR POLIOMYELITIS.

Cases by the Week.

	Boston.	Non-resident.
Week ending July 29, 1916	4	2
Week ending Aug. 5, 1916	3	1
Week ending Aug. 12, 1916	9	.....
Week ending Aug. 19, 1916	5	6
Week ending Aug. 26, 1916	8	4
Week ending Sept. 2, 1916	15	6
Week ending Sept. 9, 1916	22	2
Week ending Sept. 16, 1916	38	16
Week ending Sept. 23, 1916	55	18
Week ending Sept. 30, 1916	52	18
Week ending Oct. 7, 1916	77	25
Week ending Oct. 14, 1916	54	13
Week ending Oct. 21, 1916	53	13
Week ending Oct. 28, 1916	36	9
Week ending Nov. 4, 1916	24	14
Week ending Nov. 11, 1916	15	4

As may be observed from the foregoing, anterior poliomyelitis is steadily decreasing in this city.

Beginning during the week ending July 29 there were reported to this department four cases of this disease and the following week only three cases.

Each succeeding week saw a larger and increasing number of cases reported until the disease reached its greatest incidence during the week ending October 7 when the total number of cases reported was 77.

It is interesting to note that in five weeks the disease jumped from 15 to 77, and in the next five weeks the disease declined from 77 to 15, and also that the average increase every week compares with the average decrease weekly.

Clean water, clean food, clean homes make clean, healthy citizens.

HERE'S THE HAPPY ANTI-DISEASE SQUAD

ANTERIOR POLIOMYELITIS SITUATION IN BOSTON.

Up to and including November 21 there have been reported to this department 633 cases of anterior poliomyelitis and 152 deaths. Of these 633 cases 157 have been brought into Boston from outside cities and towns. The 476 found in Boston are in the following sections of the city:

East Boston	82	South Boston	61
Hyde Park	39	Brighton	6
Dorchester	83	South End	40
Charlestown	43	West End	46
Jamaica Plain, W. Rox.,	17	North End	17
Roxbury	41	Boston Harbor	1
From outside cities and towns			157

The cases have been found in the following age periods:

Under one year	73
Under two years	148
Under three years	104
Under four years	57
Under five years	31
Between five and ten years	34
Between ten and twenty years	11
Over twenty years	18

Every case of this disease in Boston is immediately removed to the hospital, if the condition of the patient warrants. As soon as the patient is removed, premises are disinfected and all contacts kept under supervision for a period of three weeks.

THINGS WHICH ARE BAD FOR ALL BABIES.

Pacifiers.
Thumb sucking.
Soothing syrups.
Patent medicines.
Whiskey or gin for supposed colic.
Dirty playthings, dirty nipples, dirty bottles, dirty floors.
Waterproof diapers except for temporary use.
Moving picture shows.
Violent rocking, bouncing and rollicking play at any time.
Play of every sort immediately after feeding.
Kissing the baby on its mouth.

Testing the temperature of the baby's milk by taking the nipple of the bottle in the mouth.

Sucking on empty bottles.

Sleeping on the mother's breast while nursing.

Sleeping in bed with the mother.

Spitting on the handkerchief to remove dirt from the baby's face or hands.

Sneezing or coughing in the baby's face.

Allowing a person with a cough or a cold to hold the baby.

Allowing any person with tuberculosis to take care of the baby.

The baby is not a toy or a plaything, but a great responsibility — its health, growth and happiness depend largely on you.

COMMON SENSE RULES FOR HEALTH.

Seed will take root and yield fruit abundantly if planted on fertile soil, but if planted among the rocks will wither and decay.

So it is with the germs of disease. These little enemies of mankind are hovering about us almost everywhere, lying in wait, designing to plant themselves in some weak, poorly nourished or careless creature, whose physical apparatus is in a state of low resistance. Coming in contact with anyone in this state of poor health, the germ takes root, multiplies, gives off rapidly its poisons and soon grips the patient with perhaps a fatal disease. But if the germ is lodged in the well nourished individual, whose personal hygiene is stimulated by proper methods of living, it has as much chance of gaining foothold and thriving as the seed has planted among the rocks.

Breathe fresh air, not only in daytime but during the sleeping hours, not only in spring and summer but also in autumn and winter. The old adage still holds "Early to bed, early to rise, makes a man healthy, wealthy and wise." Remember that fresh air is a splendid tonic. Inhale it whenever you can — you will not get too much — make good every opportunity, for time and sun wait for no man. Breathe through the nostrils and by so doing you will filter the dust-laden air before it is received into the tender lung cells. Breathe deeply in the open air and become accustomed to sudden changes of weather. Wet shoes and clothing should be removed as soon

as possible. Children, especially, should not visit the thickly settled quarters of a city unless necessary.

Masticate well the food you eat, and thereby give the saliva an opportunity to carry out its complete function by thorough mixture with the food.

Lunches carried to school or to work or elsewhere should be carefully wrapped, preferably in oiled paper, and should not be allowed to remain where dust accumulates. Simple but nourishing food should be taken. All meats should be well cooked before using, and milk, if there is any suspicion about its quality, should be boiled before taking.

It is important in the prevention of all diseases to upbuild the body and the mind together. "A sound mind in a sound body." Overstudy and overwork tend to weaken the resistance of the body and due care must be exercised along these lines. All forms of recreation in the open air are commendable. Gymnastic exercises, as far as possible in the open, and all sports which tend to develop the constitution are excellent preventive measures in the battle against the microbe.

If your suspicion is aroused concerning a threatening disease it is your first duty to summon your physician, not only to protect yourself but also to safeguard the public at large.

The sign of a card on a door denoting a communicable disease within does not mean that it is necessary to take the other side of the street or to avoid the family or friends of the unfortunate patient. The Health Department of your city does all in its power for your protection and when you see the card denoting the presence of an infectious disease tacked on the front door of a house, you must have full confidence in your health authorities. They investigate and see to it that no outside contamination is spread.

If individuals would coöperate more closely with their local health officials, by obeying their special regulations, less disease and misery would exist.

Nothing will help more to carry on their laudable work than for each and every one to observe the simple common sense rules of hygiene.

PERSONAL HYGIENE AND COMMUNICABLE DISEASES.

A patient ill with a communicable disease should be isolated at once and a strict quarantine observed until all evidence of the disease has disappeared. In the average case of diphtheria

the period of quarantine lasts about two weeks. Scarlet fever requires a longer isolation to allow for the process of peeling. "To be well warned is half armed." On first suspicion of a sore throat it is well to have medical attendance as soon as possible for the severity of the case often depends upon early treatment. This is especially true of diphtheria.

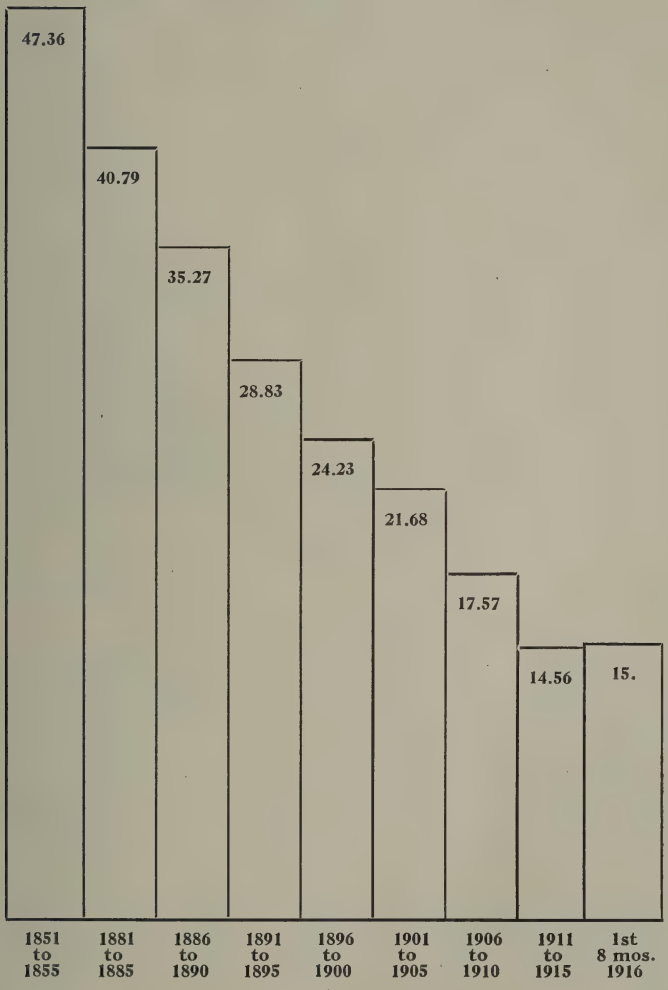
It seems almost needless to advise against the use of the roller towel and the common drinking cup. It has been estimated that there were some 20,000 epithelial cells from the lips on one common drinking cup that had been used in a school nine days, which well illustrates the danger of infection which may thus be carried. Happily the schools today are equipped with modern drinking fountains, which is a sign of progress and also a splendid object lesson in personal and civic hygiene.

No sane person would think of using the tooth brush of another, and yet how often do men trade smoking pipes and smoke the same cigar or cigarette. How frequently is chewing gum set aside only to be found and used by another child. Moistening the finger with saliva and putting the mouth to other improper uses may spread disease. The mouth is used to hold pins, thread, pencils, money, to wet postage stamps and envelopes. Children exchange apples, cakes and candies, men their pipes and tobacco and women their hatpins. A mother is seen to wipe the baby's face with her own soiled handkerchief and then a visitor to the home is shortly after invited to kiss the little one. Combs, brushes, handkerchiefs or any article intended for personal use should not be passed around but kept almost sacred by the owner. Every time you enter to drink at a soda fountain you pay your money to be served properly. Be sure to note that the glass served you has been properly cleansed.

Human communication from one person to another is the most potent factor in the spread of all diseases and it is unfair and almost criminal in some cases for any person ill with a sore throat or rash on the body to mingle in the company of other normal persons — as at a dancing party, class room, workshop, theater, or other places where people may congregate. The stuffy, ill-ventilated trolley car or train coach likewise may harbor dangerous germs.

This is the time to prepare physically for the winter. Start in now with exercise and fresh air and do not over-clothe or over-eat.

BOSTON DECREASE IN DEATH RATE FROM TUBERCULOSIS
(PER 10,000 POPULATION). 1851-1916.



STAMPING OUT THE TRAFFIC IN ROTTEN EGGS.

From January 1 to November 1 of this year forty-five complaints have been made in court by this department against dealers in eggs in this city for selling eggs unfit for food, and fines aggregating $4,820 have been levied on these unscrupulous dealers. Many of those prosecuted were engaged solely in the business of selling rotten eggs, and others included some of the largest wholesale dealers in eggs in Boston.

In this campaign against the sale of decomposed eggs the department has been greatly aided by the officials of the United States Bureau of Chemistry, stationed in this city, who have at all times willingly coöperated in the efforts to stamp out this business, and such a degree of success would not have obtained were it not for the assistance of these men.

In this connection the regulation of the United States Department of Agriculture prohibiting the shipment in interstate commerce of eggs which show more than 5 per cent deterioration has operated greatly to the advantage of the dealer, who now does not have to stand the loss of these rotten eggs, and also the public, that does not have to consume them.

This department has drafted regulations which are now before the Corporation Counsel of Boston for approval, and which will, when put into operation, prevent any rotten eggs, whatsoever, from reaching the public.

DUST ON FOOD CONTAINERS.

Until the time when the present commonly used milk bottle cap is practically replaced by a device which completely covers the top and lip of the bottle, it should be the duty of every milk user to wash off the cap and lip of the bottle thoroughly, and wipe the edge of the bottle with a clean cloth before pouring the milk from the container. These precautions will remove street dust or other dirt, which may have collected on the cap or the bottle lip after the milk was placed in the bottle, and also lessen the danger from human sources in the handling of the package before it reaches the householder's table.

Like care should be exercised before opening other package food materials. Canned goods, for illustration, after long standing in shops are likely to be coated with dust, which unless removed by water and wiping would at least soil the contents of the packages.

Keep food materials clean, and thereby lessen the danger of sickness.

TAKE CARE OF YOUR EYES.

They Are Your Breadwinners.

Poor Eyesight } Means { Poor wages.... / Discomfort.... / Disease..... } And is often due to { Lack of care or to Improper care of the eyes.

Good Eyesight } Means { A fair chance 1. To earn a good living 2. To enjoy life healthfully } And demands { Good care of the eyes.

WARNINGS OF EYE TROUBLE.

Improperly fitted glasses, or
Lack of glasses, or
Eye diseases

cause many symptoms which are warnings that something should be done; for example,

Headaches,
Eye aches or
Tired feelings on using the eyes,
Blurred vision,
Inflammation or soreness of eyes or lids,
Watery eyes,
Swelling, puffiness or drooping of lids.

These symptoms are warnings.

DEATH RATE FROM HEART DISEASES.

It is announced by the Bureau of the Census, Washington, D. C., that diseases of the heart killed more people in the United States than any other disease. In 1900 the death rate from heart disease was 123.1 per 100,000 people, and in 1914 increased to 150.8 per 100,000 people, thus securing first place in the ranks of causes of death.

These figures emphasize the necessity for better habits of life. Among the chief causes of heart disease are over eating, over drinking, over playing and over working. Proper living would reduce the danger from diseases of the heart to an almost negligible quantity. Take care of your habits and your heart will take care of itself.

Exercise promotes the circulation of blood and the assimilation of food and is a heat producer.

MILK AS A FOOD.

Cows' milk and the products therefrom comprise a large part of the food supply of human beings. The constituents of milk afford a well balanced and nutritive food readily assimilated by the majority of normal human individuals. It is also thoroughly digested by many of those with impaired health. From the standpoint of economy milk has the advantage of requiring no preparation; furthermore, there is no waste. It contains all of the essential nourishing ingredients at a small outlay, and should be made a more prominent factor in the dietary of every family, and especially in the sustenance of children.

OCTOBER.

October is the month when communicable diseases begin their upward climb.

Care should be exercised to prevent diseases that so often prove fatal.

The time and trouble spent, the fear and worry experienced when sickness comes is too great a price to pay for ignorance and neglect.

Our duty is to prevent disease and thereby save lives. Common sense rules and advice carefully followed give us a good handicap to win the race.

Be sure to call a physician when any symptoms of illness develop. Do not wait until complications set in, because negligence often leaves its mark in the "after effects" of communicable diseases.

Every parent should do his duty by himself, his neighbor, his community and his country. He will do this if he prevents disease from entering his household.

REMEMBER this: Last year in Boston 1,031 people died from tuberculosis, a preventable and curable disease. From scarlet fever, diphtheria, whooping cough and measles almost 500 young lives were blotted out.

Get accustomed to the cold weather by keeping in the open as much as possible. Keep moving, walk briskly, forget about the thermometer and the cold will not bother you,— you will be less inclined to catch "cold."

SUMMARY OF RATES.

Birth and Death Rates per 1,000 of Population, 1901-1915.

	1901–05.	1906–10.	1911	1912.	1913.	1914.	1915.
Births (excluding stillborns).....	27.52	27.81	26.07	26.23	26.17	25.92	26.36
Deaths (excluding stillborns).....	18.75	17.88	17.08	16.17	16.10	15.76	16.06
Smallpox.....	.095	.0003	.001	.....	.....	.....	.....
Measles.....	.124	.127	.107	.154	.105	.083	.053
Scarlet fever.....	.153	.104	.107	.044	.105	.087	.106
Diphtheria and croup.....	.387	.265	.180	.142	.212	.225	.291
Whooping cough.....	.124	.113	.156	.104	.132	.061	.148
Typhoid fever.....	.224	.160	.091	.079	.082	.088	.053
Diarrhea and enteritis (under two years).	.979	.910	1.010	.821	.729	.639	.605
Diarrhea and enteritis (all ages)...	1.112	1.033	1.139	.911	.837	.731	.711
Pulmonary tuberculosis.....	2.168	1.757	1.549	1.518	1.447	1.392	1.382
Deaths under one year per 1,000 births (excluding stillborns).	138.41	133.40	125.15	115.74	109.69	103.12	103.68

PULMONARY TUBERCULOSIS BY AGE PERIODS, JANUARY TO OCTOBER, 1916 (INCLUSIVE).

Age Periods.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 to 85.	Unknown.	Totals.	Grand Total.
Male.....	26	19	30	57	152	169	150	145	130	102	83	55	34	17	7	4	1	5	1,186	1,901
Female...	19	18	30	92	115	102	89	81	63	35	22	17	15	7	4	4	2	...	715	

CASES REPORTED.

Pulmonary Tuberculosis, by Wards, January to October, 1916 (Inclusive).

Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Totals.
1	1	6	4	1	6	2	4	3	3	6	36
2	4	12	9	12	12	12	10	13	9	15	108
3	5	4	2	5	2	8	5	3	8	2	44
4	3	7	6	7	7	7	5	1	6	4	53
5	30	28	28	32	21	35	41	36	23	22	296
6	20	15	12	16	18	26	20	13	13	17	170
7	5	14	6	11	7	15	7	2	5	9	81
8	5	11	9	8	7	10	5	11	9	10	85
9	8	13	6	14	12	9	14	16	15	10	117
10	3	8	4	5	7	10	9	6	10	5	67
11	1	12	10	6	7	5	9	7	11	4	72
12	8	16	8	8	9	9	8	11	16	13	106
13	14	20	12	16	10	14	17	12	15	8	138
14	3	3	2	10	6	6	4	11	5	7	57
15	6	4	9	8	.....	8	12	7	9	2	65
16	3	2	3	2	7	2	9	6	5	1	40
17	4	4	6	3	3	5	5	6	7	2	45
18	2	4	1	6	9	9	6	4	5	2	48
19	1	6	5	2	5	8	5	3	2	4	41
20	3	2	4	4	6	2	6	3	2	2	34
21	3	3	3	5	12	5	4	3	3	3	44
22	.....	5	1	2	5	1	3	3	6	7	33
23	2	6	5	1	3	.....	6	4	3	5	35
24	1	5	3	6	8	5	3	2	4	.....	37
25	4	.....	.....	2	1	2	3	1	6	1	20
26	2	7	3	2	2	.....	1	2	3	3	25
Unknown	1	.....	1	.....	.....	.....	1	.....	.....	1	4
Totals	142	217	162	194	192	215	222	189	203	165	1,901

PULMONARY TUBERCULOSIS.

Cases by Kind of House, Sanitation, Sleeping Arrangements, Sputum Reports and Hospital (Ten Months).

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Totals.
Kind of House:											
Single	1	4	6	7	24	21	23	17	22	13	138
Two apartment	7	8	12	9	17	22	19	20	27	22	163
Three apartment	19	32	21	28	73	77	85	87	78	61	561
Four apartment	1	.....	2	.....	16	16	10	9	9	6	69
Hotel	1	1	1	1	.....	3	2	1	.....	1	11
Lodging houses	17	22	14	21	22	25	21	14	24	30	210
Institution	1	1	2	1	.....	1	1	1	2	1	11
Basement	6	5	2	4	.....	.....	5	3	2	1	28
Not given	89	144	102	123	40	50	56	37	39	30	710
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Sanitation:											
Excellent	7	31	21	22	17	27	22	25	15	33	220
Good	39	60	37	59	67	52	54	55	63	53	539
Fair	49	65	59	55	55	70	73	61	68	43	598
Poor	11	12	12	15	12	18	16	16	23	15	150
Very poor	1	.....	1	.....	1	2	.....	1	3	3	12
Not given	35	49	32	43	40	46	57	31	31	18	382
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Separate Room:											
Yes	80	127	86	120	110	122	126	128	127	99	1,125
No	32	38	44	40	40	45	42	26	44	28	379
Not given	30	52	32	34	42	48	54	35	32	38	397
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Separate Bed:											
Yes	86	130	101	133	117	126	127	125	136	108	1,189
No	26	38	31	30	34	42	41	32	35	22	331
Not given	30	49	30	31	41	47	54	32	32	35	381
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Sputum:											
Positive	30	58	48	52	70	49	57	45	47	44	500
Negative	10	17	13	19	25	19	15	8	25	21	172
Not given	102	142	101	123	97	147	150	136	131	100	1,229
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Hospital:											
Yes	62	89	66	107	78	90	80	58	48	57	735
No	80	128	96	87	114	125	142	131	155	108	1,166
Totals	142	217	162	194	192	215	222	189	203	165	1,901

PULMONARY TUBERCULOSIS.

Cases by Sex, Condition, Color and Mother Nativity (Ten Months).

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Totals.
Sex:											
Male	96	138	99	122	131	133	145	110	129	88	1,191
Female	46	74	59	72	61	82	77	79	74	76	700
Unknown	.....	5	4	.....	.....	.....	.....	.....	.....	1	10
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Conjugal Condition:											
Single	59	96	68	95	89	88	89	83	93	69	829
Married	57	75	65	62	63	79	84	70	66	64	685
Widowed	1	13	9	9	6	8	11	8	18	13	96
Divorced	4	1	1	1	2	1	3	.....	2	1	16
Unknown	21	32	19	27	32	39	35	28	24	18	275
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Color:											
White	124	196	148	175	182	203	208	179	185	148	1,748
Chinese and black	9	9	7	12	10	12	14	10	12	7	102
Unknown	9	12	7	7	.....	.....	.....	.....	6	10	51
Totals	142	217	162	194	192	215	222	189	203	165	1,901
Mother Nativity:											
Boston	31	42	23	31	31	20	16	7	12	17	230
United States	19	30	20	25	24	26	25	18	26	14	227
Ireland	25	57	41	57	45	48	45	47	67	42	474
England, Scotland and Wales	8	7	4	9	10	6	8	1	9	7	69
Germany	3	3	5	3	4	3	8	6	3	1	39
Canada	10	17	11	17	15	19	22	20	15	24	170
Sweden	2	3	1	3	7	4	5	4	5	3	37
Italy	6	15	15	14	12	11	17	17	10	10	127
France	.....	.....	1	1	.....	2	.....	.....	.....	.....	4
Russia	19	22	20	15	18	29	24	24	18	21	210
Other countries	11	15	12	13	15	15	11	18	14	6	130
Unknown	8	6	9	6	11	32	41	27	24	20	184
Totals	142	217	162	194	192	215	222	189	203	165	1,901

REPORT OF THE HEALTH UNIT FOR THE MONTH OF OCTOBER, 1916.

Visits by medical inspector:	
Contagious	37
Tuberculosis	—
Ophthalmia	8
Miscellaneous	80
Total	125
Cases visited by nurses:	
Medical	189
Babies	361
Total	550
Defective sanitary conditions found in tenement houses,	39
District physicians' calls	83

Instructive District Nursing Association.

Visits made by nurses	415

Baby Hygiene Association.

Total number of babies cared for	145
New babies admitted	11
Babies readmitted	2
Conferences held	5
Total conference attendance	209
Home visits by nurses	487

Consumptives' Hospital Department.

Visits made by nurses	486

SUMMARY OF VITAL STATISTICS.

There were 1,105 deaths reported in the five weeks ending November 4, against 998 in the corresponding period last year, a death rate of 15.68 against 14.23.

Reported deaths of nonresidents numbered 166 against 138 last year.

Of deaths from reportable diseases the principal decrease was:

Whooping cough	16

and the principal increases were:

Anterior poliomyelitis	72
Tuberculosis (all forms)	7
Measles	3

Other important differences were as follows:

Decreases:	
Diarrhea and enteritis (under 2 years)	17
Increases:	
Heart disease and nephritis	37
Cancer	14
Accidental and violent	8
Premature births	7

There were 8 less deaths under 1 year, 24 more under 5 years, and 5 more over 60 years.

MORTALITY FOR THE FIVE WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	998	1,105
Nonresidents	138	166
Rate	13.91	15.16
Corrected rate (nonresidents deducted)	11.98	12.88
Deaths under 1 year	188	176
Deaths under 2 years	230	221
Deaths under 5 years	260	284
Deaths over 60 years	267	319

CAUSES OF DEATH.

	1915.	1916.
Anterior poliomyelitis	1	73
Cerebrospinal meningitis	4	4
Diphtheria	11	11
Measles	2	5
Malaria	—	1
Scarlet fever	1	—
Trachoma	1	—
Tuberculosis (all forms)	88	95
Typhoid fever	6	7
Whooping cough	20	4
Pellagra	—	1
Varicella	1	—
Accidental and violent	78	86
Heart disease, endocarditis, pericarditis and nephritis	187	224
Bronchitis	10	9
Cancer	69	83
Diarrhea and enteritis (under 2 years)	57	40
Diarrhea and enteritis (2 years and over)	4	7
Dysentery	1	—
Erysipelas	1	3

	1915.	1916.
Meningitis and encephalitis	4	4
Old age	2	—
Pneumonia	108	107
Premature birth	27	34
Puerperal diseases	6	7
Rheumatism	1	—
Other causes	308	300

The following is a Summary of the Work Done by the Different Divisions in the Department for the Five Weeks Ending November 4, 1916.

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	195	263	11	11	41	30	1	1
Scarlet fever	59	115	.....	1	12	12	.....	1
Measles	32	96	5	2	1	.....	2	.....
Typhoid fever	26	85	7	6	6	11	4	3
Whooping cough	36	61	4	20	.....	2	.....	.....
Tuberculosis (all forms)	231	265	95	88	26	39	12	6

CENTRAL DIVISION.

Legal notices authorized	1,268
Prosecutions authorized	34
Hearing	1
Premises ordered vacated	32
Miscellaneous orders	5
Applications Lying-in Hospital approved	10
Forcible removals ordered	16

Licenses — Permits.

Dump permits refused	3
Basement permits refused	2
Permit to occupy	1
Undertakers appointed	2
Basement permit granted	1
Vehicles inspected and approved	771
Milk	128
Licenses to peddle fruit and vegetables	10
Manicure — Massage	23
Hens	34
Dump	2
Numbers assigned	21
Licenses revoked to occupy basements	2
Stable permits revoked	3
Place assigned for sausage making	1

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	1,793
Antitoxin given	26
Deaths investigated	24
Cases brought to Boston for treatment	84
Vaccinations	130
Vaccination certificates	263
Forcible removals recommended	16
Antityphoid vaccine administered	14

Public Health Nursing.

Communicable disease visits	3,562
Number of revisits (infants)	2,273
Number of new babies visited	3,858
Total visits by nurses	9,693

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	927
Tuberculosis	414
Typhoid	154
Syphilis	298
Gonorrhea	351
Other examinations *	265
Bacteriological milk examinations	621
Bacteriological ice cream examinations	14
Bacteriological water examination	1

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	1,726
Calves inspected	980
Swine inspected	7,954
Sheep inspected	24
Animal condemned, whole	1
Parts condemned	874

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	1,142
Bacteriological examinations of milk	620
Bacteriological examinations of ice cream	14
Chemical examinations of vinegar	61
Chemical examinations of butter and cheese	92
Chemical examinations of ice cream	3
Number of court cases	19
Fines	$270

* Examination of rats, 165; Genito-Urinary Tuberculosis, 7; Malaria, 15; Paratyphoids, 2; Ophthalmia, 69; Poliomyelitis, 1; Meningitis, 1; K. L. Virulence, 1; miscellaneous, 4.

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Meats and Fish:	
Poultry	55 pounds	Smoked meats	100 pounds
Halibut	72 pounds	Oysters	20 gallons
Haddock	44 pounds	Miscellaneous:	
Pork	92 pounds	Grape fruit	4,000 pounds
Miscellaneous meats,	148 pounds	Potatoes	502 bushels
Turkey	5 pounds	Tomatoes	1 bushel
Spawn	2 pounds	Plums	2 pounds
Salt pork	149 pounds	Peaches	102½ pounds
Finnan haddie	25 pounds	Pears	1 peck
Pigs' feet	78 pounds	Apples	3 pecks
Sword fish	4½ pounds	Stores examined	393
Salmon	16½ pounds	Prosecutions	10
Mackerel	2 pounds	Fines	$230

SANITARY INSPECTION.

New reports	4,081
New tenement house reports	25
Legal notices recommended	1,268
Reinspections	5,232
Nuisances reported	5,724
Complaints investigated	1,384
Number of court cases	3
Fines	$135

MORBIDITY AND MORTALITY FOR 44 WEEKS OF 1916.

	1915.	1916.
Total deaths	10,335	11,159
Nonresident deaths	1,407	1,539
Deaths under 1 year of age	1,758	1,844
Pneumonia	1,235	1,415
Cancer	777	762
Heart disease	1,358	1,501
Diarrhea and enteritis under 2 years	405	340

DEATHS FROM COMMUNICABLE DISEASES FOR SAME PERIOD.

	1915.	1916.	1916. Non-residents.
Diphtheria	186	148	37
Scarlet fever	76	34	17
Measles	34	96	7
Typhoid fever	37	20	5
Whooping cough	93	64	4
Tuberculosis	819	959	91

CASES OF COMMUNICABLE DISEASES REPORTED.

(44 Weeks.)

	1915.	1916.	1916. Non-residents.
Diphtheria	2,495	2,063	358
Scarlet fever	2,692	1,596	333
Measles	4,920	5,160	88
Typhoid fever	351	167	12
Whooping cough	1,815	1,362	19
Tuberculosis	2,483	2,307	182

MONTHLY METEOROLOGICAL SUMMARY, OCTOBER.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 30.13; highest, 30.60; date, 18; lowest, 29.52; date, 8.

TEMPERATURE.

Highest, 84; date, 8; lowest, 36; date, 18; greatest daily range, 36; date, 9; least daily range, 5; date, 31; normal for month, 52.30°.

PRECIPITATION.

Total this month, 0.94; snowfall, 0.0; greatest precipitation in 24 hours, 0.61; date, 19, 20; snow on the ground at end of month, 0.0; normal for this month, 3.86.

WIND.

Prevailing direction, southwest; total movement, 7,489 miles; average hourly velocity, 10.1; maximum velocity (for five minutes), 42 miles per hour, from northwest, on 17th.

WEATHER.

Number of days clear, 14; partly cloudy, 9; cloudy, 8; on which .01 inch or more of precipitation occurred, 7.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 3, 8, 15, 16; lunar, 7, 8; hail, 0; sleet, 0; fog, 3, 25, 30, 31; thunderstorms, 0; frost: light, 0; heavy, 12, 18; killing, 0.

"If medicine is to render its highest and best service the time must come when all citizens will seek a thorough physical examination once a year or oftener, and diseases should be prevented or detected while yet curable.

"In the past century fifteen years have been added to the average of human life, and a like addition could be secured were well-established hygienic laws obeyed."

UNITED PRINTING TRADES UNION LABEL COUNCIL BOSTON, MASS.

1557

NOVEMBER, 1916

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1915.

	Population	748,431	
Births	19,750	Birth rate	26.26
Deaths	12,022	Death rate	16.06

Of these total deaths 13.4 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.	
Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex.
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the reporting of cases of communicable diseases, issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

FREE WASSERMANN TESTS.

The Bacteriological Laboratory is prepared to examine blood specimens by the Wassermann test for syphilis, free of expense. Tests are made each Tuesday, Wednesday and Thursday. Blood is drawn from patients in the laboratory each Monday, Tuesday, Wednesday, Thursday and Friday from 2 to 4 p. m.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, NOVEMBER, 1916. NO. 11

Vaccination is the only Protection against Smallpox.

ANTERIOR POLIOMYELITIS.

(Infantile Paralysis.)

The recent outbreak of poliomyelitis in this city is finally under control.

Up to December 3, 1916, there were 642 cases reported and 154 deaths. Of these 642 cases, 162 were brought into Boston from surrounding cities and towns for treatment, and of the 162 cases brought in for treatment, 26 died.

This department in the latter part of June, closely watching the situation in greater New York, made elaborate preparations to cope with the threatened outbreak. During the months of July and August, and up to the present time, the whole force of the Health Department, including doctors, nurses and inspectors, have been and are in the field, with instructions to educate the public upon the importance of cleanliness, the great danger to their children in frequenting theaters, halls or assemblies where large gatherings of people might be found; and have endeavored to reach the people so as to impress on them the importance of closely guarding their children, and especially with relation to calling a physician upon the first appearance of any sickness. The other municipal departments and the hospitals have worked in close coöperation with this department, with the result that a low number of cases of the disease have been reported.

The first case reported during the year 1916 was in March, in Ward 10, after which the city was entirely free from the disease until the week ending July 29, when four cases were reported, increasing during the months of August and Septem-

ber until the week ending October 7, when 76 cases were reported. After this each succeeding week showed a decrease in the number of cases reported until at this writing, December 3, only two cases have been reported for the week.

Poliomyelitis in Boston Since 1911.

Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1911	32	4	1914	23	7
1912	27	1	1915	17	3
1913	41	5	1916	480	128

Anterior Poliomyelitis.

Cases and Deaths.

	Boston.		Non-Resident.	
	Cases.	Deaths.	Cases.	Deaths.
Week ending July 29, 1916	4	2	2	.....
Week ending Aug. 5, 1916	3	1	1	.....
Week ending Aug. 12, 1916	9	3	.....	.....
Week ending Aug. 19, 1916	5	2	6	1
Week ending Aug. 26, 1916	7	4	4	.....
Week ending Sept. 2, 1916	15	6	6	.....
Week ending Sept. 9, 1916	22	8	2	.....
Week ending Sept. 16, 1916	38	16	16	1
Week ending Sept. 23, 1916	55	13	18	2
Week ending Sept. 30, 1916	52	15	18	2
Week ending Oct. 7, 1916	76	15	25	4
Week ending Oct. 14, 1916	53	8	13	5
Week ending Oct. 21, 1916	52	10	13	7
Week ending Oct. 28, 1916	36	7	9	3
Week ending Nov. 4, 1916	24	9	14	.....
Week ending Nov. 11, 1916	15	4	4	.....
Week ending Nov. 18, 1916	7	2	5	.....
Week ending Nov. 25, 1916	5	1	5	1
Week ending Dec. 2, 1916	2	2	1	.....
	480	128	162	26

A few of the earlier cases gave a history of recent arrival from New York City, and these cases were probably imported. The subsequent cases showed no history of recently arriving from

an infected focus or exposure to known cases. Where two or more cases occurred in the same family the patients usually became ill at about the same time, indicating simultaneous infection.

Secondary Cases.

	Date.	Number Children in Family.	Number Ill.
First case	Sept. 17	2	2
Second case	Oct. 2		
First case	Sept. 17	4	2
Second case	Sept. 19		
First case	Sept. 22	3	2
Second case	Sept. 22		
First case	Sept. 22	2	2
Second case	Sept. 22		
First case	Oct. 5	4	2
Second case	Oct. 5		
First case	Oct. 6	5	2
Second case	Oct. 9		
First case	Oct. 22	2	2
Second case	Oct. 22		
First case	Oct. 12	5	2
Second case	Oct. 21		
First case	Oct. 6	3	2
Second case	Oct. 6		
First case	Oct. 15	2	2
Second case	Oct. 15		
First case	Oct. 6	5	3
Second case	Oct. 13		
Third case	Oct. 20		
First case	Nov. 5	5	2
Second case	Nov. 6		

The outbreak in this city has been distinctly a place infection. A focus once established was followed in a few weeks by other cases in the same neighborhood or in the immediate vicinity.

Sanitary conditions and density of population do not seem to be factors in the incidence of the disease. In the North End, old Ward 6, population about 36,000, 122 persons to the acre, only 17 cases were reported; whereas in the West End, old Ward 8, population about 33,000, 189 people to the acre, 46 cases were reported.

Brighton, with a population of about 27,000, 9 persons to the acre, only 9 cases reported; East Boston, Ward 1, population about 24,000, 25 cases; Ward 2, population about 42,000, 56 cases.

Again, only 9 cases were reported in Ward 23, population about 22,000; while in the Hyde Park district, Ward 24, adjoining, population about 23,000, 41 cases were reported.

Sanitary conditions and overcrowding are about the same in the North and West End districts, and in the last few weeks cases that have been reported from congested neighborhoods have given histories of being sick from four to six weeks with no medical supervision or attention; still no subsequent cases have developed.

Children's institutions in this city caring for many thousands of children have been remarkably free from any outbreak of the disease.

Although this outbreak was fought along the lines of a distinct communicable disease like diphtheria, scarlet fever and typhoid fever, it is a question if the hospitalization of cases helped to diminish the incidence of the disease. Of the total number of cases reported 420 were removed to the hospitals. The theory generally accepted by health officers that poliomyelitis is spread by human carriers needs further proof before it can be accepted.

Cases and Deaths by Ward Distribution.

(According to New Ward Lines.)

Wards.	Cases.	Deaths.	Wards.	Cases.	Deaths.
1	25	10	14	12	2
2	56	17	15	7	1
3	21	6	16	7	2
4	22	8	17	15	6
5	63	13	18	14	3
6	18	2	19	11	3
7	7	2	20	12	4
8	15	7	21	34	8
9	33	8	22	9	2
10	21	5	23	10	2
11	7	1	24	39	15
12	9	0	25	2	0
13	6	0	26	5	1
Totals	303	79	Totals	177	49
Grand totals				480	128

Cases and Deaths by Age Periods.

	Cases.	Deaths.
One year and under	73	22
Between one and two years	150	33
Between two and three years	104	22
Between three and four years	57	14
Between four and five years	33	10
Between five and ten years	35	12
Between ten and twelve years	6	1
Between twelve and fourteen years	1	.....
Between fourteen and sixteen years	2	2
Between sixteen and eighteen years	.....	.....
Between eighteen and twenty years	3	3
Between twenty and thirty years	10	4
Between thirty and forty years	4	4
Between forty and fifty years	.....	.....
Between fifty and seventy years	2	1
Totals	480	128

Cases and Deaths by Months.

Month.	Cases.	Deaths.
July	8	4
August	34	14
September	168	52
October	228	44
November	41	14
December	1	.....
Totals	480	128

Sex of Cases and Deaths.

	Cases.	Deaths.	Totals.
Males	192	75	267
Females	160	53	213
	352	128	480

Place of Death.

At home	39
In hospital	89
Total	128

Distribution of Paralysis.

One leg	138
Both legs	86
One arm	47
Facial	25
Both arms	18
One leg and one arm	16
Both legs and both arms	11
Neck	11
Trunk	10
Respiratory	9
Palate and throat	8
Bulbar	4
Respiratory and one arm	4
Respiratory and both arms	4
One leg and facial	3
Both legs and one arm	2
One leg and both arms	2
Back and left side	1
None	30
Unknown	51
	480

WARNING — SMALLPOX.

The recent outbreak of smallpox in the western part of the state should serve as a timely warning to all unvaccinated persons in this city. Protection or immunity from smallpox in this city can be obtained only by the vaccination and revaccination of its citizens.

A study of this disease in Boston for the past thirty years shows conclusively that epidemics have occurred at intervals of ten to fifteen years. As a result of the outbreak of 1893-94 the inhabitants were well vaccinated and the disease necessarily disappeared. From that time until 1901, the next outbreak, the city was free from this disease with the exception of occasional cases that are imported into every large city. In 1901, after a lapse of eight years, the majority of the people had lost their protection by vaccination, and the disease again appeared in epidemic

form; and before it was brought under control 1,500 cases and 277 deaths occurred. This great number of deaths from a preventable disease is a heavy toll for any community to pay when vaccination, which will afford absolute protection from the disease, is free to all inhabitants of the city.

At the present time in this city there are thousands of people who, vaccinated in infancy, have probably lost their protection against the disease; and there are also many thousands more who have arrived in the city and are as yet unvaccinated.

It is the duty of parents to see that not only they themselves but also their children are safeguarded and protected from this disease by vaccination.

THE WORTH OF VACCINATION.

"Duly and efficiently performed it will protect the constitution from subsequent attacks of smallpox as much as that disease itself will."—(JENNER.)

In countries where vaccination is compulsory there is little if any smallpox, and on the other hand, in countries where there is no such law the contrary is true.

The mortality from smallpox has been five to sixteen times greater among the unvaccinated than among the vaccinated.

It is compulsory in Germany to be vaccinated during the first year of life and also a second time at the age of twelve years. There are no epidemics of smallpox in Germany.

In 1897 there were but eight deaths from smallpox in that country and in the period from 1901–1910 there were 380 deaths. In England and Wales with only half the population of Germany there were 4,286 deaths.

In 1909 in the German Empire of 54,000,000 people there were twenty-six deaths from smallpox; eleven of these were people who had come from Russia.

Since 1874 in the huge German army there have been but two deaths from this disease. Vaccination is compulsory in that country, hence the good results.

Rest, recreation and exercise are as necessary in winter as in the summer.

FRESH AIR AN ADVANTAGE.

Air movement is the essence of air purification, and this is especially essential in motion picture houses.

Get accustomed to fresh air, breathe all of it that you can and you will not mind the rigors of the cold wintry air.

If you become hardened to cold weather you will be healthier and less prone to contract coughs, colds, bronchitis, pneumonia.

Remember the outbreak of influenza last year. Keep your body in good physical condition and you will escape an attack this year.

It is during the coming months that the increase in respiratory diseases begins to show. Be on guard, be prepared, be fit to fight them.

Fresh air whether warm or cold never was a cause of death.

If you are employed where the possibility of a constant supply of fresh air is impossible try to secure from your employer an arrangement so that there will be a constant movement of that limited supply.

Your sleeping rooms and living rooms should receive plenty of fresh air, even to the extent of throwing open all the windows in your home twice a day for at least five minutes at a time. A constant bath of the rooms with fresh air is as beneficial as a regular water bath to the body.

TELL THE CHILDREN TO
KEEP THEIR FINGERS OUT OF THEIR
MOUTHS

DAIRY STERILIZER.

Farmers' Bulletin 748 is devoted to a new form of sterilizer adapted for use for dairy utensils. It is inexpensive and its employment at dairies would result in marked improvement to milk supplies. Experiments carried on by the Department of Agriculture have demonstrated its efficiency, the destruction of bacteria remaining in washed cans amounting to 99 per cent. It is adapted for sterilizing milk utensils, cans and separator parts. Where used appreciable improvement in flavor and keeping quality of milk and cream has followed. This pamphlet may be procured by writing the Secretary of Agriculture, Washington, D. C., and asking for Farmers' Bulletin 748.

COLD STORAGE.

Criticism of the influence of cold storage on the flavor of foods is not always well founded. The fault finding is in many instances due to lack of refrigeration at the proper period. Eggs and dairy products offer good illustrations. The spoilage of these foodstuffs begins at the farm, and here high temperature is a vital factor. This is the point where the application of refrigeration should commence, and the aim should be not to cry down the influence of cold storage on foods, but to insist that with all products which are to be placed in cold storage, refrigeration should begin before the commencement of detrimental changes. This would mean prompt and thorough cooling on farms and constant maintenance of a low temperature before the goods reach the storage warehouses. With this care, criticism as to the harmful effect of cold storage on the flavor of foods would be minimized and a tremendous economic loss would be checked, for which consumers are now taxed.

BAD COLDS, GRIPPE AND PNEUMONIA

Are Caused by Very Small Plants Called Germs that Come from the Mouths or Noses of Persons Suffering from the Above Diseases.

A person gets the germs into his body by inhaling the drops or spray that have been sneezed or coughed out into the air by the sick person; or else gets the germs into his body by placing into the mouth something that is soiled by the saliva of the sick person.

The germs do not poison a person when he is feeling well and strong as readily as when he is weak and tired and chilled.

Therefore, to Prevent these Diseases,

A. Keep the germs from getting into the mouth or nose.
B. Keep the body strong.
C. If you get sick, keep the germs from others.

A. To Keep the Germs from Getting into Your Mouth or Nose:

1. Keep away from persons who are coughing or sneezing.
2. Do not put into the mouth, fingers, pencils or other things except food.
3. Do not drink out of a cup others use, without washing it.
4. Keep away from crowds.

B. To Keep the Body Strong:

1. Avoid getting hungry, tired and cold.
2. Sleep and work in rooms filled with fresh air, taking care to keep the body warm and to avoid drafts.
3. Take as much exercise as you can in the fresh air.
4. Eat plenty of simple, nourishing food and avoid alcoholic drinks.
5. Change your clothing with the weather and never let the body get too hot or too cold.

C. To Keep Germs from Others if You Get Sick:

1. Cover your nose and mouth with a handkerchief when you cough or sneeze.
2. If you cannot get your handkerchief, turn your face away from others.
3. Keep away from crowds.
4. Wash the hands frequently.
5. Do not spit on the floor.

These precautions will also help prevent measles, whooping cough and tuberculosis.

It is not always easy or even possible to take all these precautions. Sometimes the resistance of our bodies is lowered in spite of our efforts and sometimes we get chilled or have to remain close to someone who is sneezing. The part to remem-

ber is that we lessen the danger of catching these diseases just in proportion as we take these precautions. Even a few precautions will help. Take those you can.

A STATISTICAL STUDY OF DIPHTHERIA.

The following are some of the main conclusions in a paper presented October 27 before the Vital Statistics Section of the American Public Health Association, Cincinnati, Ohio, by Dr. F. W. Crum:

1. Comparing the pre-antitoxin with the antitoxin period it is conservatively estimated that there is at present an annual saving of at least 250,000 lives throughout the world as a result of antitoxin and other improved treatment of diphtheria. This estimate is based upon the official mortality returns of twenty countries for a quarter-century period.

2. Notwithstanding the great reduction in the diphtheria death rate this disease is still responsible for about 4 per cent of the total mortality at ages under 15 years in the combined countries of the world which have reliable death registration.

3. Diphtheria still causes more deaths in the United States than scarlet fever, measles or whooping cough. Diphtheria therefore remains a distinct menace to children notwithstanding antitoxin, its specific curative agent. The average annual number of deaths from diphtheria and croup in the United States is approximately 17,000, against 10,000 from whooping cough, 9,000 from measles and 8,000 from scarlet fever.

4. There is positive and overwhelming evidence that the earlier the use of antitoxin the better the results and the greater the chance of recovery. There is almost equally positive evidence that the medical world has as yet taken only partial advantage of one of the greatest discoveries (antitoxin) of modern times in the field of preventive medicine.

5. All races are susceptible to diphtheria, but there is some evidence that the negro and the American Indian are less susceptible than Caucasians, Chinese, Japanese, Hawaiians, Filipinos and Mexicans.

6. The diphtheria attack and mortality rates are highest in the second, third and fourth years of life. After the age of five years the death rate falls rapidly and at the adult ages the death rate is only about 1 per cent of the average rate for ages under 5 years.

7. In the registration area of the United States during the five years 1910 to 1914, 62.2 per cent of all the deaths from

diphtheria and croup occurred at ages under 5 years; 25.8 per cent occurred at ages 5 to 9 years; 6.0 per cent occurred at ages 10 to 14 years, and only 6.0 per cent occurred at ages 15 years and over.

8. Both sexes are about equally affected by diphtheria when all ages are combined. The death rate of males is higher than the death rate of females at ages under 5 years; the rates are about equal at ages 5 to 19 years; from 19 years on the rate is higher for adult females than for adult males. The higher adult female mortality is probably due mainly to the fact that professional female nurses and mothers perform most of the diphtheria nursing service and are therefore more exposed to diphtheria contagion than are adult males.

9. In the mortality experience of the Prudential for a two-year period, including 3,920 deaths from diphtheria and croup, 2,834, or 72.3 per cent, were complicated with other secondary diseases. The secondary complications most frequently met with were heart disease (296 cases), respiratory diseases (277 cases), scarlet fever (121 cases), urinary diseases (98 cases), and measles (51 cases).

10. Density of population, either directly or indirectly, seems to be an important factor in diphtheria morbidity and mortality in the United States and elsewhere. The diphtheria death rates in the United States are higher in the urban than in the rural areas. The rate is higher in the New England, Middle Atlantic and East Central cities and states than in the far Western and Southern cities and states.

11. Climatological factors, especially rainfall and temperature, apparently influence the relative epidemicity and virulence of diphtheria, but much more extended investigations are necessary before these factors can be properly appraised.

12. Diphtheria is now probably endemic in every country in the world and pandemic in most, if not all, countries. Diphtheria is also epidemic in its spread in practically every locality, but at irregular time intervals. In 100 cities of the United States during a period of 15 years there were one or more deaths every year in all of the cities, with only one exception. During this period of 15 years the annual diphtheria death rates of the 100 cities (1,500 rates) ranged from zero to 173 per 100,000 of population.

13. In the various countries of the world the average annual death rate from diphtheria during the most recent 5-year period for which the data are available has ranged from 6.8 per 100,000 of population in Chili and 7.0 in New Zealand and

the Netherlands to 19.0 in the registration area of the United States, 22.6 in Prussia, 25.9 in Austria and 40.1 in Serbia.

14. There is no conclusive evidence that diphtheria as a disease is decreasing. On the contrary, the weight of evidence is favorable to the view that it is increasing.

15. The underlying conditions which determine the relative degrees of susceptibility to the Klebs-Lœffler bacillus and the varying degrees of its virulence are still elusive and more or less doubtful, and for this reason the control of diphtheria will probably continue for many years to be one of the serious and difficult problems of sanitary administration.

FOODSTUFFS IN COLD STORAGE IN BOSTON.

The following figures gathered by investigators of this department give some idea of the amount of foodstuffs in cold storage in this city on November 23:

Year.	Meats. (Pounds.)	Poultry. (Pounds.)	Butter. (Pounds.)	Fish. (Pounds.)	Eggs. (Cases.)
1915	19,535,160	5,675,417	17,589,550	5,250,000	369,705
1916	10,630,660	4,998,000	15,940,134	4,194,877	230,109

Amount of Potatoes and Flour in Storage.

Year.	Potatoes. (Barrels.)	Flour. (Barrels.)
1915	84,600	31,577
1916	117,540	33,361

The Boston Fruit and Produce Exchange bulletin states that on December 5 there were in cold storage 133,328 cases of eggs against 230,962 cases at the same time last year.

Stocks of Butter and Eggs in Cold Storage in the United States December 1.

Year.	Butter. (Pounds.)	Eggs. (Cases.)
1915	61,692,000	2,040,000
1916	52,586,000	1,336,000

WASH FOODSTUFFS.

Meats, vegetables and fruits should all receive careful washing at the hands of those who prepare meals. The skin of poultry is often dirty when bought and consequently should receive a good washing with a soft brush and water in which baking soda has been dissolved. This applies as well to other meats whose skin or outer parts have been exposed and handled. When meat is received the skin side should be rubbed with a hot wet cloth and then carefully scraped with a knife.

Figs, dates, berries, grapes, apples and pears should also be thoroughly washed and the skin rubbed in order to remove all dirt that clings to the skin, inasmuch as the outer covering is usually eaten with the pulp. Celery, lettuce, asparagus, and in fact all vegetables and greens should receive thorough rinsings before being eaten or cooked. We should be most careful with all edibles that are eaten in their raw state.

POULTRY.

Poultry purchased should be drawn immediately and unless known to have been recently killed should be thoroughly washed on the inside and used soon. Poultry that is drawn directly after killing, keeps better if it is not washed until used, and should be hung in a cold place. Cold storage fowl should not remain in a warm room before cooking. It should be kept in a cold place and cooked as soon as possible.

DO YOU KNOW THAT

The United States guards American ports to exclude foreign disease?

Pneumonia kills over 120,000 Americans each year?

The well that drains the cesspool is the cup of death?

A low infant mortality rate indicates high community intelligence?

Rural sanitation is a health protection to the city dweller?

It's foolish to educate a boy and then let him die of typhoid fever?

REPORT OF THE HEALTH UNIT FOR THE MONTH OF NOVEMBER, 1916.

Health Department.

Visits made by medical inspector:	
Contagious	15
Tuberculosis	3
Ophthalmia	9
Miscellaneous	49
Total	76
Cases visited by nurses:	
Medical	165
Babies	570
Total	735
Defective sanitary conditions found in tenement houses,	11
Calls by district physician from Boston Dispensary	108

Instructive District Nursing Association.

Visits made by nurses	654

Baby Hygiene Association.

Total number of babies cared for	151
New babies admitted	12
Babies readmitted	2
Conferences held	4
Total conference attendance	189
Home visits by nurses	380

Consumptives' Department.

Calls made by nurse in district	368

Associated and Hebrew Federated Charities.

Cases investigated and assisted	5

SUMMARY OF VITAL STATISTICS.

There were 950 deaths reported in the four weeks ending December 2, against 838 in the corresponding period last year, a death rate of 16.28 against 14.73.

Reported deaths of nonresidents numbered 158 against 110 last year.

Of deaths from reportable diseases the principal decrease was:

Whooping cough	5
Diphtheria	2
Typhoid fever	2
Tuberculosis (all forms)	3

and the principal increase was:

Anterior poliomyelitis	13

Other important differences were as follows:

Decreases:	
Heart disease and nephritis	10
Puerperal diseases	7
Diarrhea and enteritis (under 2 years)	6
Increases:	
Accidental and violent	54
Other causes	54
Pneumonia	20
Cancer	5

There were 2 more deaths under 1 year, 2 more under 5 years, and 9 more over 60 years.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	838	950
Nonresidents	110	158
Rate	14.73	16.28
Corrected rate (nonresidents deducted)	12.68	13.59
Deaths under 1 year	133	135
Deaths under 2 years	157	168
Deaths under 5 years	186	188
Deaths over 60 years	278	287

CAUSES OF DEATH.

	1915.	1916.
Anterior poliomyelitis	—	13
Cerebrospinal meningitis	1	1
Diphtheria	18	16
Measles	2	2
Malaria	—	—
Malignant pustule	1	—
Scarlet fever	1	—
Ophthalmia neonatorum	1	—
Trachoma	1	—

	1915.	1916.
Tuberculosis (all forms)	82	79
Typhoid fever	4	2
Whooping cough	8	3
Influenza	—	2
Septic sore throat	—	1
Pellagra	—	—
Varicella	—	—
Accidental and violent	62	116
Heart disease, endocarditis, pericarditis and nephritis	176	166
Bronchitis	11	10
Cancer	59	64
Diarrhea and enteritis (under 2 years)	23	17
Diarrhea and enteritis (2 years and over)	4	5
Dysentery	—	—
Erysipelas	—	2
Meningitis and encephalitis	6	3
Old age	2	2
Pneumonia	97	117
Premature birth	26	29
Puerperal diseases	13	6
Rheumatism	1	—
Other causes	240	294

The following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending December 2, 1916.

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	144	264	16	18	40	48	8	7
Scarlet fever	85	155	.....	1	24	24	.....	.....
Measles	48	149	2	2	.....	7	.....	1
Typhoid fever	12	30	2	4	1	2	.....	.....
Whooping cough	30	203	3	8	.....	2	1	1
Tuberculosis (all forms)	180	216	79	82	27	14	13	5

CENTRAL DIVISION.

Legal notices authorized	655
Prosecutions authorized	11
Hearing	1
Premises ordered vacated	2
Miscellaneous order	1
Applications Lying-in Hospital approved	3
Forcible removals ordered	8

Licenses — Permits.

Grease license	1
Vehicles inspected and approved	740
Milk licenses	95
Licenses to peddle fruit and vegetables	7
Manicure — Massage	73
Hen permits	90
Dump permits	4
Numbers assigned	21
License revoked	1
Hen permit revoked	1
Licenses renewed to remove grease, bones, etc.	71
Permit to keep goats	1
Undertaker appointed	1

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	846
Antitoxin given	21
Deaths investigated	15
Cases brought to Boston for treatment	63
Vaccinations	51
Vaccination certificates	69
Forcible removals recommended	8
Antityphoid vaccine administered	6

Public Health Nursing.

Communicable disease visits	1,130
Number of revisits (infants)	4,945
Number of new babies visited	1,628
Total visits by nurses	7,703

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	436
Tuberculosis	337
Typhoid	107
Syphilis	267
Gonorrhea	239
Other examinations *	239
Bacteriological milk examinations	674

FOOD INSPECTION.

Live Stock Inspected at Brighton Abbatoir.

Cattle inspected	1,540
Calves inspected	1,105
Swine inspected	1,930
Animals condemned, whole (swine)	45
Parts condemned	693

* Examination of rats, 153; Genito-Urinary Tuberculosis, 9; Malaria, 14; Paratyphoids, 6; Ophthalmia, 55; K. L. vir. 2.

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	937
Bacteriological examinations of milk	574
Chemical examinations of vinegar	102
Chemical examinations of butter and cheese	76
Chemical examinations of ice cream	4
Number of court cases	28
Fines	$385

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Poultry	14 pounds	Eggs	26 dozen
Turkey	741 pounds	Walnuts	1,714 pounds
Beef	1,194 pounds	Grapes	50 pounds
Chicken	18 pounds	Cranberries	1 barrel
Lamb	66 pounds	Cabbage	8 pounds
Veal	111 pounds	Potatoes	12 bushels
Mackerel	5 pounds	Stores examined	403
Haddock	25 pounds	Prosecutions	5
Halibut	27 pounds	Fines	$90

SANITARY INSPECTION.

New reports	2,673
New tenement house reports	118
Legal notices recommended	655
Reinspections	4,324
Nuisances reported	4,182
Complaints investigated	993
Number of court cases	4
Fines	$60

MORBIDITY AND MORTALITY FOR 48 WEEKS OF 1916.

	1915.	1916.
Total deaths	10,864	11,713
Nonresident deaths	1,472	1,649
Deaths under 1 year of age	1,843	1,916
Pneumonia	1,250	1,481
Cancer	800	809
Heart disease	1,430	1,540
Diarrhea and enteritis under 2 years	422	353

Seventy-six out of eighty-seven cases of typhoid fever which occurred in a recent outbreak have been traced by the United States Public Health Service to infected milk. Had the first cases been reported to a trained health officer the outbreak could have been stamped out promptly. When will we learn that disease prevention is sure and cheap?

DEATHS AND CASES OF COMMUNICABLE DISEASES REPORTED.

(48 Weeks.)

	Deaths.			Cases.		
	1915.	1916.	1916. Non-residents.	1915.	1916.	1916. Non-residents.
Diphtheria	200	170	50	2,800	2,193	400
Scarlet fever	76	36	17	2,797	1,677	383
Measles	36	107	6	4,991	5,168	37
Typhoid fever	39	23	6	387	182	12
Whooping cough	10	74	6	1,981	1,376	17
Tuberculosis	963	1,020	90	2,613	2,460	217

MONTHLY METEOROLOGICAL SUMMARY, NOVEMBER.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 30.10; highest, 30.56; date, 12; lowest, 29.16; date, 24.

TEMPERATURE.

Highest, 68; date, 9; lowest, 22; date, 21; greatest daily range, 29; date, 27; least daily range, 8; date, 13; normal for month, 41.2°.

PRECIPITATION.

Total this month, 1.67; snowfall, 0.7; greatest precipitation in 24 hours, 0.94; date, 30, December 1; snow on the ground at end of month, 0.0; normal for this month, 4.10.

WIND.

Prevailing direction, west; total movement, 7,687 miles; average hourly velocity, 10.7; maximum velocity (for five minutes), 35 miles per hour, from west, on 25th.

WEATHER.

Number of days clear, 11; partly cloudy, 8; cloudy, 11; on which .01 inch or more of precipitation occurred, 8.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 0; lunar, 4.9; hail, 0; sleet, 12; fog, 0; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

HEALTH DEPARTMENT
MEDICAL DIVISION

FREE VACCINATION.

The Health Department has established a Vaccination Station at 17 Blossom Street, near Cambridge Street, West End, where all persons residing in Boston may obtain vaccination free of charge every day between the hours of nine and twelve in the forenoon, and two to five in the afternoon, Sundays and Holidays excepted, and on Saturdays between nine and twelve in the forenoon.

UNION PRINTING TRADES LABOR COUNCIL BOSTON, MASS.

1559

DECEMBER, 1916

Rec'd JAN 26 1917 B. P. L.

MONTHLY BULLETIN

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Commissioner*

STATISTICS FOR 1916.

Population	760,400		
Births	19,583	Birth rate	25.7
Deaths	12,724	Death rate	16.74

Of these total deaths 14.1 per cent were nonresidents.

BOSTON
HEALTH DEPARTMENT
CITY HALL ANNEX
1916

HEALTH DEPARTMENT.

(Tel. Fort Hill 5100.)

Commissioner of Health.

Publications and Licenses	1107–1108 City Hall Annex.
Medical Division	1107 City Hall Annex
Communicable Diseases	1107 City Hall Annex.
Child Hygiene	1108 City Hall Annex.
Health Unit	17 Blossom street.
Vaccination Station	17 Blossom street.
Detention Hospital	Southampton street.
Occupational Clinic	17 Blossom street.
Bacteriological Laboratory	1101 City Hall Annex.
Examination of Cultures	1101 City Hall Annex.
Wassermann Tests	1101 City Hall Annex.
Food Inspection Division	1110 City Hall Annex.
Inspection of Foodstuffs	1110 City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1102 City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1111 City Hall Annex.
Abatement of Nuisances	1111 City Hall Annex.
Examination of Gasfitters	1111 City Hall Annex.
Vital Statistics	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

OFFICE HOURS.

The Health Department will be open from 9 a. m. to 11 p. m., inclusive, Sundays and holidays, for the reporting of cases of communicable diseases, issuing of burial permits, the distribution of antitoxins and vaccines, and the receiving of cultures and widals.

FREE WASSERMANN TESTS.

The Bacteriological Laboratory is prepared to examine blood specimens by the Wassermann test for syphilis, free of expense. Tests are made each Tuesday, Wednesday and Thursday. Blood is drawn from patients in the laboratory each Monday, Tuesday, Wednesday, Thursday and Friday from 2 to 4 p. m.

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Commissioner of Health.*

All communications relating to this publication should be addressed to Editor, BULLETIN OF THE HEALTH DEPARTMENT, BOSTON.

VOL. 5. BOSTON, DECEMBER, 1916. NO. 12

A long life is indicative of right living.

IMPROVEMENT IN HEALTH CONDITIONS IN 1916.

A résumé of the activities of the Health Department during the past year (1916) and the results accomplished in preventive medicine, affords much hope and encouragement for even better results during the coming year.

The public press, lectures, and the health bulletin and circulars published by this department have been a great force in the education of the public along the lines of preventive medicine.

The results accomplished in the campaign against typhoid fever are especially gratifying as this year Boston will show the lowest number of deaths and the lowest death rate from typhoid fever in its history and probably lower than any of the large cities in this country for the year 1916. Diphtheria and scarlet fever will also show lower death rates than previously.

The sickness survey made during the year was of great value from a health standpoint and especially gratifying as regards conditions found existing in Boston. It was found that the proportionate number of persons receiving hospital treatment in this city was larger than in any of the other cities surveyed. The sickness rate was also lower than in any of the other cities. As a result of the survey, the sick were found to be well cared for by the excellent medical facilities of Boston, including the hospitals, dispensaries, nursing associations and other health and social agencies.

Great progress has also been made in the infant welfare work. All babies during the first year of life are now visited, and an endeavor is made to educate the mothers in the proper care of their children, especially during the first twelve months of the child's life.

During the past year the first health unit was established in the West End district, and the results accomplished in that particular section of the city will warrant the opening of other centers in the other congested portions of the city as soon as means can be provided.

PROVISIONAL SUMMARY OF VITAL STATISTICS FOR 1916.

Deaths for the year 1916, reported up to January 10, numbered 12,724 against 12,021 last year, giving a death rate of 16.74 against 16.06 last year.

Deaths of nonresidents numbered 1,795 against 1,640 last year, and known deaths of Bostonians outside of the city numbered 675 against 704 last year. Corrected for these two factors, the 1916 death rate per 1,000 population is 15.25 against 14.81 last year.

A few provisional figures for 1916 are given below:

	1916.		1915.	
	Deaths.	Death Rate (100,000 Population.)	Deaths.	Death Rate (100,000 Population.)
Typhoid fever	26	3.4	40	5.3
Diphtheria	185	24.3	218	29.1
Scarlet fever	39	5.1	79	10.6
Measles	107	14.1	40	5.3
Whooping cough	75	9.9	111	14.8
Tuberculosis (all forms)	1,316	173.1	1,210	161.1
Anterior poliomyelitis	167	21.96	3	.4

The 1916 death rate for typhoid fever, deducting nonresidents, is 2.5.

This department has for free distribution a well written, illustrated pamphlet on smallpox; it is one of a series prepared by the American Medical Association.

OTHER COMPARISONS FOR 1915 AND 1916.

	Total Deaths, 1916.	Total Deaths, 1915.
Cerebro-spinal meningitis	42	25
Accidental and violent	910	828
Bright's disease	886	837
Bronchitis	118	128
Cancer	866	855
Diarrhea and enteritis, under 2 years	356	453
Diarrhea and enteritis, 2 years and over	62	79
Erysipelas	73	48
Heart disease	1,674	1,604
Pneumonia	1,629	1,498
Influenza	80	37
Total deaths under 1 year	2,055	2,045
Total deaths under 5 years	3,023	2,976
Total deaths over 60 years	3,760	3,627

Actual births reported to City Registrar, 19,583, but it is estimated by him that the total will reach 19,800, which would make the rate 103.7.

The total number of deaths shows an increase of 703 over last year. Nonresidents dying in Boston account for some of this increase as there were 155 more than last year. Each year more and more nonresidents take advantage of our hospitals,* and as these deaths must be figured in our death rate, it can be seen how our death rates are kept high. This feature is especially noticeable in the communicable diseases. Surrounding cities and towns send their cases here for treatment. Of the 26 deaths from typhoid fever, 7 were nonresidents. Scarlet fever was much higher — almost 50 per cent, or 19 of the deaths being those of nonresidents of Boston; diphtheria showed 52 of these nonresidents.

During the early part of the year the outbreak of influenza and pneumonia was responsible for an increase of more than 200 deaths. To this increase may be added the increase of 164 deaths from poliomyelitis, and the unfortunate electric car accident at South Boston which caused 48 more.

It is gratifying to note the decrease in the number of deaths from typhoid fever, scarlet fever, diphtheria and whooping cough. The number of deaths from typhoid fever and the typhoid fever death rate being the lowest ever attained

* These constitute 14% (fourteen per cent) of our total deaths.

in this city, and up to this writing the lowest ever reached by any large American city having more than 350,000 population.

While the total number of deaths of children under one year was 10 more than in 1915, and the infant mortality rate will remain about the same as last year, some significance must be placed on the fact that there were outbreaks of influenza, pneumonia and anterior poliomyelitis, all at different periods during the year, resulting in a great number of deaths of infants under one year of age.

Only on two other occasions since 1882 has there been a lower number of deaths of children under one year of age. In this connection it might be said that nurses of this department visited almost 15,000 babies, and made subsequent visits totaling almost 72,000.

Cases, Deaths and Death Rates per 1,000 of Population.

	Cases.	Deaths.	1916 Death Rate.	1915 Death Rate.	Previous Lowest Death Rates.	
					Year.	Rate.
Typhoid fever	185	26	3.4	5.3	1915	5.3
Diphtheria	2,409	185	24.3	29.1	1912	14.3
Scarlet fever	1,764	39	5.1	10.6	1912	4.5
Measles	5,322	107	14.1	5.3	1879	0.6
Whooping cough	1,393	75	9.9	14.8	1905	4.9
Pulmonary tuberculosis (all forms)	2,868	1,316	173.1	161.1	1914	141.9

PROMISCUOUS SPITTING, — INSANITARY, DANGEROUS AND UNLAWFUL.

The season for the great increase in pneumonia, bronchitis, tonsilitis and grippe, besides other respiratory diseases, is now with us, and, remembering the outbreak this time last year, it might be well that extra precaution be taken in order to prevent a repetition of this condition.

A common cold is a dangerous thing. It is not only dangerous to the individual but there is also the likelihood of his passing it on to others unless care is used. Coughing, spitting and sneezing are all mediums by which these diseases are spread. It takes only a short time for a careless member of a family to be the cause of every member in that household having a cough or a cold. Not much attention is paid as to the reason or

wherefore of the colds, but the fact remains that one member was the cause of all the others becoming infected.

Expectoration is dangerous in cars, shops, stores, or in fact any place where people congregate. Each individual should be careful to respect the rights of others. There are statutes and regulations forbidding this practice, but how often do we see evidence of violation after violation, especially on the sidewalks, in the subways and on the stairways leading to and from the elevated structures and the subways.

A few years ago a campaign was inaugurated against these persistent and dangerous violators. The great number of people haled into court had a salutary effect on this dirty and unhygienic habit and for a long time our streets and public places were noticeably clean.

This promiscuous spitting, coughing and sneezing is not only dangerous but is a filthy habit bred of ignorance. If the person addicted to this habit will but use his handkerchief the danger will be minimized and he will be benefiting the entire community. He knows when he spits on the floors, stairways, etc., of public places he is violating the law, but thinks that he is not seen or detected and consequently will not be arrested. The time may soon come when measures will again be adopted to prevent this filthy and dangerous habit. It is a good time for all that violate the spitting law to quit. There will be fewer arrests and less disease. A handkerchief is easy to carry and the proper thing to use, so that when you must cough, spit or sneeze hold your handkerchief in front of your mouth and nose to receive the droplets and spray that are likely to be emitted. If you have no regard for yourself at least have some consideration for your fellow-man.

PROHIBITION OF SPITTING.

(Statute Law.)

Spitting on Sidewalks, Floors and Platforms Prohibited.

SECTION 1. No person shall expectorate or spit upon any public sidewalk or upon any place used exclusively or principally by pedestrians, or, except in receptacles provided for the purpose, in or upon any part of any city or town hall, any court house or court room, any public library or museum, any church or theater, any lecture or music hall, any mill or factory, any hall of any tenement building occupied by five or more families, any school building, any ferryboat or steamboat, any railroad car, except a smoking car, any elevated railroad car, except a smoking car, any street railway car, any railroad or railway station or waiting room, or on any track, platform or sidewalk connected therewith, and included within the limits thereof.

Penalty and Power of Arrest.

SECTION 2. Whoever violates any provision of this act shall be punished by a fine of not more than twenty dollars. Any person detected in the act of violating any provision of this act may be arrested by any officer authorized to serve criminal process in the place where the offence is committed and kept in custody until he can be taken before a court which has jurisdiction of such offence; and if his name is unknown to the officer who makes the arrest, he may be arrested without a warrant.

Health Department Regulation Concerning Spitting in Public Places.

The Board of Health hereby adjudges that the deposit of sputum in public places is a nuisance, source of filth and cause of sickness, and hereby orders: That spitting upon the floor, platform, wall, roadbed, rails, ties or steps of any railroad or railway station or car or on other surfaces belonging to any railroad or railway station, or car, or from any electric car while said car is in the subway or elevated above the surface of the ground, or upon the floor, platform, or steps of any public building, hall, church, theater, market, or upon any public sidewalk, be and hereby is prohibited.

PROGRESS OF SANITARY SCIENCE.

It is often remarked in these days that we live much faster than did our forefathers; our children are more precocious, the range of our knowledge is wider, we travel faster and see more, our business life is more varied in its ramifications and more exacting in its demands upon our energy. The old days when a family took root, so to speak, in one spot and a hundred-mile journey was an event of tremendous importance have gone, and many a young man of our day has seen more of life in his twenty or twenty-five years than was ever dreamed of by his great-grandfather at threescore and ten, if perchance his revered ancestor lived to that scriptural allotment; for figures, which cannot lie, and statistics compiled from the most reliable data show that we also live longer than did our sedate forefathers, and that within the last hundred years our individual expectation of life, as the insurance people say, has been increased at least fifteen years.

That many factors are engaged in bringing about this lengthening of the span of life must be granted by any careful student of the subject; our more sanitary mode of living, the careful protection of water supplies, the supervision of milk production, the medical inspection of school children, the educational and practical campaign for the prevention of infant mortality are all contributory to this happy result.

Of more importance than any single one of these factors and entering more or less into the application of them all is our increase of knowledge concerning the communicable diseases, their causes and prevention, and our more accurate methods for their diagnosis, treatment and control.

Great pestilences such as formerly swept unchecked across and depopulated whole countries do not occur in our day, since their causes are known and proper measures are taken wherever outbreaks take place to prevent their spreading beyond control. It has been demonstrated in the Philippines and in Panama that plague spots can be rendered habitable, and throughout the civilized world great progress is being made against the common or endemic diseases such as tuberculosis, diphtheria and typhoid fever.

LABORATORY ACCOMPLISHMENTS DURING THE YEAR.

The Bacteriological Laboratory has this year made over 28,000 examinations of specimens submitted by physicians of the city.

These tests are for diphtheria, tuberculosis, typhoid fever, gonorrheal ophthalmia, gonorrhea, syphilis and various other less ordinary diseases.

The Wassermann test for syphilis was offered for the first time, beginning January 1, 1916. Only 46 tests for this disease were requested during the first month, but the number has steadily increased until at present about 80 are made each week and the total for the year will exceed 2,500.

When one considers the price ($5) ordinarily charged in private laboratories for this test, it can be seen that a great service is being rendered in offering it free to the poor of the city who otherwise could not afford it.

The Wassermann test has proven of great value in the diagnosis and control of syphilis.

The laboratory staff is experimenting with a similar blood test for tuberculosis concerning which other workers have recently published much valuable data. Should the experiments prove the value of the test it will also within the coming year be offered free as an aid in the diagnosis of obscure cases of this disease.

Besides the above work several thousand milk specimens are examined each year to ascertain the number of bacteria present. During 1916 considerable research work was done by the labora-

tory staff to prove the accuracy of these milk tests by the comparison of reports from several workers on the same specimens. The value of these bacterial counts to the city since this work was started in 1904 has been amply proven by the marked improvement in the milk supply.

WORK OF MILK INSPECTION BUREAU.

The Bureau of Milk Inspection has supervision of the quality of milk, cream, ice cream, butter, cheese, oleomargarine and vinegar sold to consumers in Boston.

The chief activities are with milk and milk products, and in the pursuit of this work since the beginning of the year, 21,120 examinations have been made and 516 court cases have been completed in the various courts. In addition to this a number of court actions, commenced during the year, are pending in the Superior Court. Despite these court activities the public may rest assured that it is receiving greater value for the money expended in the purchase of the foods of which the Bureau has oversight than ever before.

Consumers are a valuable adjunct in the work of this office and they could make it more efficient with increased interest in the quality of the products purchased. The Bureau invites this support and is ready at all times to investigate complaints and examine specimens on requests of citizens. In the matter of dealing with milk containers much improvement is desired on the part of consumers. A regulation of the Health Department requires their immediate cleaning after use; and a law of this state also prohibits their employment for anything but milk products or suitable cleansing agents. Compliance with this rule and law, together with prompt return of all milk containers to milkmen, will aid the Bureau in its endeavor to better the condition of the bottles and cans in which milk is sold.

WHY NOT NOW?

Begin the cleaning of milk bottles as soon as emptied.

Return all milk bottles to owners after cleaning.

Stop using milk bottles for anything but milk, cream, skimmed milk, buttermilk and proper cleansing agents.

Thus help the Health Department to settle the dirty milk bottle problem.

THE PHYSICIAN AND PROPER MILK.

While it is felt to be the duty of the medical profession to bring the importance of proper milk supplies to the attention of their patients, physicians, before approving a brand or grade of milk, would do well to ascertain the facts in relation to these supplies from Health Departments, rather than to depend for information solely upon those who have the milk for sale.

STOCKS OF BUTTER AND EGGS IN COLD STORAGE.

The monthly statement of the associated warehouses shows that stocks of butter in 54 cold storage plants scattered all over the country, as of January 1, were only 2,569,000 pounds less than they were on the same date last year. Stocks on December 1 last were 9,106,000 pounds less than on December 1, 1915. It is evident from this comparison that the consumption of butter is beginning to be affected by the high prices that have prevailed during the past few months. Actual withdrawals of butter from storage in December were 12,409,000 pounds, which compares with 16,378,000 pounds in November, a decline of approximately 25 per cent. In December, 1915, withdrawals aggregated 24,074,000 pounds, or almost double those of last month.

There was a big reduction in cold storage stocks of eggs, which, as of January 1, aggregated 564,000 cases, as compared with 1,336,000 cases a month before and 1,049,000 cases a year ago. Holdings, as of January 1, were little more than half those of a year ago. The statement in detail follows:

	Jan. 1, 1917.	Jan. 1, 1916.	Decrease.
Butter, pounds	37,608,000	40,177,000	2,569,000
Eggs, cases	564,000	1,049,000	485,000

MILK AS AN ECONOMICAL AND VALUABLE FOOD.

An effective means of reducing living expenses is to use milk in larger quantities and less of higher priced food products. Milk is not only economical, but it is wholesome and of high nutritive value. In addition to its employment in cooking, it could be used in place of coffee and tea, with advantage to the majority of human beings from both health and financial standpoints. It is both food and drink, and if taken slowly it is readily assimilated; milk is not only beneficial to adults, but a necessary part of the daily diet of children, and should be given the latter in generous amounts.

Comparison of food values and prices illustrates the economy resulting from the employment of greater quantities of milk. It has been determined that one quart of milk (now costing nine to ten cents) is approximately equal in food value to any one of the products in the appended list.

	Cents.
$\frac{4}{5}$ pound pork loin at 18 cents	14
$\frac{3}{5}$ pound ham at 23 cents	14
$\frac{3}{4}$ pound lean beef at 25 cents	19
1 pint oysters at 23 cents	23
8 eggs at 45 cents	30
2 pounds salt codfish at 17 cents	34
3 pounds fresh codfish at 15 cents	45
2 pounds chicken at 28 cents	56
Average	29

The use of more milk means greater economy in the household.

GET VACCINATED.

It is far better to be prepared against smallpox by being vaccinated than to wait until it strikes you. We know that it is one of the most contagious of the communicable infections, and we also are familiar with its dreadful results. Smallpox in an unvaccinated person is generally fatal. We should be armed to fight it, and the best protection is vaccination.

It is the duty of every citizen to protect himself, his family and the community against this disease which may appear at any time. A little unpleasantness or ill feeling now is better than disease and possibly death when smallpox appears.

If you get vaccinated with good virus and a clean needle on clean skin, **and care for the vaccination properly,** you will have no trouble and no smallpox.

Consult your physician and be vaccinated.

CAMPAIGN AGAINST RATS.

The Women's Municipal League of this city is about to start in on a campaign, the object of which is the elimination of the rats by starving them out and by destroying their breeding places.

With this end in view the league has sought the assistance of his Honor the Mayor as well as the heads of the city departments and Mrs. Leatherbee who is to direct the campaign has

made the following suggestions which have been approved by the Health Commissioner and the Mayor.

That the campaign be directed and in full charge of the Women's Municipal League.

That a certain day be set aside and known as "Rat Day" for all sections of the city, and February 13 has been designated as this day.

That on this day a special effort be made by all householders and occupants of mercantile establishments to catch and kill rats and take them to the nearest city yard and deposit them in receptacles furnished by the League and in charge of its agents.

That the agents of the League be allowed to circularize all city departments under your jurisdiction and distribute literature to city employees.

That the agents of the League be given permission to place posters in city buildings and on walls of city property.

That the League be allowed the free use of municipal buildings on specified dates for meetings and lectures in regard to eliminating rats.

The School Committee will also be asked to coöperate through the students in all the public schools. The support of all large business houses and organizations is being enlisted in this campaign for the single purpose of destroying rats and their breeding places.

This department is constantly examining rats that are caught along the waterfront by an efficient rat catcher employed for this purpose. During the past year 1,234 rodents have been caught and carefully examined at the laboratory for any evidence of bubonic plague infection. All were negative.

The bubonic plague is at present endemic in foreign parts. While it is a terrible scourge to mankind wherever it becomes established it is primarily a disease of rats and is usually introduced into new localities by rats and communicated to human beings by rat fleas which leave the dead animals.

The United States Public Health Service recognizing this danger requires vessels from infected ports to use every precaution to prevent rats escaping to the wharves and also requires thorough fumigation of such vessels to kill the rodents.

When the disease gains a foothold in a port its eradication is a tremendously expensive undertaking involving the wholesale destruction of rats and the replacing of structures which afford them hiding and breeding places by concrete buildings and wharves.

The Health Department is doing its duty in the constant examination of rats that it may detect such infection in its incipiency and if possible stamp it out before it claims human victims. It also requires the careful disposition of garbage

in order that rats may not find it easy to obtain food, and it advises that all new construction along our waterfronts be ratproof and has brought the matter to the attention of the Building Commissioner. Such buildings, while more expensive in their initial cost, are also far more durable and as they replace the old wooden structures the city would gradually be rendered secure from this danger. If, however, the plague should gain a foothold here under present conditions the replacing of the present structures, which would then become an absolute and immediate necessity, would place an exceedingly heavy burden upon the owners and the city.

SAMPLE OF SLIDES TO BE USED IN THE CAMPAIGN AGAINST RATS.

HEALTH DEPARTMENT CITY OF BOSTON

Keep your food where rats cannot reach it.

Keep your garbage in covered, water-tight receptacles.

Keep your cellars, attics, yards and alleys free from rubbish in which rats live and breed.

KILL THE RATS.

HEALTH DEPARTMENT CITY OF BOSTON

Rats bring filth, disease and death into your homes.

Rats pollute your food and destroy your property.

Rats cost money to keep and increase your living expenses.

KILL THE RATS.

Rat Notes.

The rat is a dangerous and destructive pest.

It not only destroys and damages foodstuffs and property but is also a menace to the public health.

It is known to be an active agent in the spread of infectious diseases.

Rats abound where food exists in abundance and where they can find suitable nesting and breeding places. Keep your rubbish in barrels and covered. Keep your premises clean; keep foodstuffs from places where the rats are likely to find them, and plug up any holes by which they might enter your home.

Destroy not only the rats about your premises but try to prevent the further breeding and the ingress of rats from other localities.

Rats may be destroyed by trapping, poisoning, and by natural enemies such as the cat, dog, ferret, etc.

Use any means at your disposal to rid your premises of them.

When you have freed your premises from rodents, see to it that they are kept out. Close up all holes in your house, yard and cellar by a mixture of cement, sand and broken glass and remove the planks in the yards and passageways. Cellars are better protected if the floors are cemented.

"Ratproofing of buildings is a cheap form of insurance against fire and pestilence. He who dwelleth rat free taketh no plague."

RESPONSIBILITY IN TUBERCULOSIS.

"Experts state that one half of all who die between the ages of eighteen and forty-five are victims of tuberculosis, but no repetition of figures, no emphasis of speech, no words of warning can add to the horror and terror and responsibility which, in the public mind, attach to the gruesome devastation of this disease. People, public and private, who do not perform every act within their power to check this scourge are almost guilty of negative murder." [*President Wilson.*

The next annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held in Cincinnati May 9, 10, 11, 1917.

The eighteenth annual meeting of the Society of American Bacteriologists was held in New Haven, Conn., December 27, 28, 29.

DON'T SWAP YOUR CANDY WITH OTHER MOUTHS

FACTS.

A little cough often ends in sickness or death.

Bodily vigor protects against colds.

Careless sneezing, coughing, spitting, spreads colds.

Open-air exercise cures colds.

Alcoholic beverages are not cures for colds.

Overheated, air-tight rooms beget colds.

Neglected colds often forerun pneumonia.

Handkerchiefs and towels should always be boiled after use.

Persistent, oft-repeated colds show bodily weakness and indicate that a physician should be consulted.

Keep your living rooms clean and well aired — these are protections against colds.

If you have a cough, a cold, aching limbs, or general body discomfort call a physician at once.

If ill, it is a dangerous time to hesitate.

SUCCESS OF THE HEALTH UNIT.

On March 1, 1916, through the efforts of his Honor the Mayor, there was inaugurated in the West End section of the city a Health Unit which has since developed into a Civic Center as well. This was established for the purpose of getting in close touch with the people and determining what effect education of the people, through the coöperation of all health agencies in the district, would have on the prevention of disease and death amongst infants, children and adults in that congested area of the city. His Honor felt that the place to first start such an institution would be where the congestion was greatest, and in a section that contained the greatest number of people per acre.

Wonderful results were accomplished for the people of the district during the hot summer of last year, and the success of the Unit was soon apparent. Nurses, visitors and physicians kept constantly in touch with the people, using the Unit as headquarters, and with the outbreak of poliomyelitis in the city the advantages of the Unit were shown to a still greater extent. The Unit seemed to be a mecca for the afflicted and the worried, and the women and children came with their troubles, and oftentimes imaginary illnesses, only to be sent home with their fears allayed and themselves comforted. The physicians and nurses were familiar with conditions in the district during this outbreak, and the security that the people in the district felt in having such assistance about them did much to help them.

Throughout the year there have been in the Unit representatives of the Health Department, Consumptives' Hospital Department, Instructive District Nursing Association, Boston Dispensary, Milk and Baby Hygiene Association, Associated Charities and Hebrew Federated Charities, Women's Municipal League and Mothers' Club of the West End, and through the coöperation of all of these health agencies duplication of effort and overlapping of work was eliminated, and the Unit became a clearing house for the district.

The Unit was also used during the year for health exhibits and talks by people familiar with conditions in the district and who spoke the languages of the people there. With the spirit that prevails in this center among the workers, and their ability to get in close touch with the women and children of this district, there can be no doubt of the continued success of the Unit, and the efforts of his Honor the Mayor to establish units in other sections of the city should be commended and supported by all citizens of the entire city.

The following are some of the organizations which are centered in the Unit and the functions they perform:

1. Health Department, with the following in attendance.
   Medical Inspector.
   Sanitary Inspector.
   Food Inspector.
   Nurses.
   Vaccination Station.
   Occupational Clinic.
2. Consumptive Department of the City of Boston, who hold a weekly clinic for examination of tubercular suspects, and also the headquarters for the Consumptive Department Nurses of the West End.
3. Instructive District Nurses' Association.
   This is a call station for the nurses who do bedside nursing and prenatal nursing in the district.
4. Boston Dispensary.
   District physician.
   This has become an excellent call station for the district physician who makes free calls to the poor of the district.
5. Milk and Baby Hygiene Association.
   A very largely attended Baby Conference station holding a weekly clinic.
6. Associated Charities and Hebrew Federated Charities.
   They are splendidly coöperating for the relief of the sick and needy.
7. Women's Municipal League, whose representative is in frequent attendance.
8. Mothers' Clubs of the West End.

LABORATORY DIAGNOSIS AND SERUM TREATMENT FOR PNEUMONIA.

At the Minneapolis meeting of the American Public Health Association in June, 1913, Dr. A. R. Dochez, Dr. L. J. Gillespie and Dr. Rufus Cole of the Rockefeller Institute presented articles of much interest dealing with the diagnosis and treatment of pneumonia.

These papers presented results of three years' careful study and experimentation begun with the idea of obtaining a specific therapy for the disease.

Neufield and Haendel had previously demonstrated that

various strains of pneumococci differ fundamentally in certain of their immunologic reactions, and recognizing the importance of this fact Dochez and Gillespie made a careful study of many strains of pneumococci isolated from human sources.

All of these organisms were tested for their susceptibility to the protective action of sera obtained by the immunization of animals to single varieties.

They were able to obtain two sera which exerted a marked protective influence against the majority of the strains of pneumococci with which they worked; white mice which had received previous treatment with these immune sera were used for the experimental tests, 62 different strains of pneumococci were used, and it was found that in 28 cases the mice were protected by serum number one, while in 12 they were protected by serum number two.

This left 22 strains for which there was no protective action. Nine of these were easily differentiated from the others by reason of their cultural and pathogenic characteristics which were those of the so-called streptococcus or pneumococcus mucosus type. The remaining 13 showed no group characteristics but were classified together for convenience.

According to the characteristics of the causative organism then they divided pneumonias into four varieties or types, Nos. 1, 2, 3 and 4 as indicated above.

They then worked with 74 cases of typical lobar pneumonia and found that in 35 instances the infecting organism belonged to Group 1, in 13 to Group 2, in 10 to Group 3 and in 16 to Group 4.

It is of interest to note the mortality in these different types of the disease, which was 24 per cent in the Group 1 cases, 61 per cent in Group 2, 60 per cent in Group 3 and but 7 per cent in Group 4.

Doctor Cole reports in the treatment of 17 of these cases with specific sera as follows:

The method of administration of the serum was as follows: On admission 2 cubic centimeters of serum were injected subcutaneously to discover if the patient was hypersensitive. As soon as the type of organism was determined from 50 to 100 cubic centimeters of the serum, diluted one half with salt solution, were injected intravenously. The condition of the patient served as a guide in the later treatment. Usually the serum was not administered oftener than every twelve hours. The patients treated received totals of from 190 to 460 cubic centimeters of serum except one, who received a total of 700 cubic centimeters of serum. Treatment was commenced on the third day in six cases, the fourth day in four cases, the fifth day in three cases and the sixth day in four cases.

The patients treated were all seriously ill, the most severe cases we have had during the winter. In the fourteen cases due to pneumococcus one, all of the patients recovered but one, and in the three cases due to Type 1, one patient died. This patient, however, objected to the treatment and would not allow its continuation, so it was not thoroughly carried out. When we consider that the mortality among the cases due to Types 1 and 2 is very high, the result is certainly not discouraging. The number of cases is much too small, however, for any conclusions to be drawn from the results as regards mortality.

At present conclusions as to the efficacy of the serum must be based on other criteria. Let us first consider the effect on the clinical course of the disease. Temperature curves are not here presented, since erroneous conclusions may be drawn unless all the curves are presented, and in the present instance this is impossible. Following practically all the injections, a reaction has occurred. The temperature usually rises and then falls, but does not necessarily remain low. In two instances the rise of temperature has been marked. In the other cases the rise of temperature following the injection was only a degree or so. In all the cases except the fatal ones the serum has apparently had an ultimate favorable effect in lowering the temperature and shortening the course of the disease, though, of course, this is a very difficult matter of which to be absolutely sure. In no case was one injection of the serum sufficient to bring on a crisis. All the patients seemed to feel better following the injection of the serum, and in a number of cases the apparent lessening in the degree of intoxication was very manifest.

When the treatment was commenced early no extension of the involvement of the lung occurred. On the other hand, however, there was no special tendency in the treated cases for the lung lesion to resolve rapidly. If anything, there seemed to be a tendency for resolution to be delayed in these cases. This has been noted by others in certain cases treated by serum. One of the patients developed a pneumothorax empyema. Operation was performed and recovery ensued.

In eight cases pneumococci were isolated from the blood before the treatment was commenced. In all cases blood cultures were made before each treatment, and in all of these cases after one treatment and before the second (or within from eight to twelve hours) the blood had become sterile. The conclusion seems justified, therefore, that one large dose of active serum given intravenously is sufficient to sterilize the blood. It also seems certain that if the organisms are not present in the blood, the administration of the serum will prevent their invasion.

In all the cases studied it has been possible to demonstrate the appearance of protective substances in considerable amounts in the serum very shortly following the administration of one dose of the immune serum, even when this serum has been administered early in the disease, at a period when such protective substances are otherwise never present. These substances persist, and in case they play a part in the mechanism of recovery, as was concluded from the previous study, it is evident that their appearance indicates a favorable action of the immune serum.

The results obtained, therefore, from the clinical and laboratory study of this series of cases of pneumonia treated by the injection of large amounts of appropriate serum, seem to indicate that a method has been devised for the successful specific treatment of at least a portion of the cases of acute lobar pneumonia.

These experiments have been confirmed by other workers and give hope that with laboratory aid in diagnosis and with early administration of the specific antiserum the mortality of this disease may at least be somewhat decreased.

The New York State Department of Health is now supplying for diagnosis and treatment in that state serums for Types 1, 2 and 3, and some of the private biological laboratories have prepared serums for Types 1 and 2. Treatment with the antiserum is said to be of but little practical value unless begun early in the disease, preferably during the first three days.

The laboratory technique for diagnosis is rather intricate, requiring careful attention to detail. The working out of a diagnosis for five cases is said to be sufficient to keep a skilled bacteriologist busy for a day.

The technique practically as recommended by Doctor Wadsworth of the New York State Department of Health is as follows:

Sputum for the examination, coughed from as far down the trachea as possible in order that the mouth flora may be avoided, is collected in sterile bottles and on receipt at the laboratory is first examined by gram and capsule stains to ascertain the prevailing flora present, and if these are chiefly from the mouth further work is practically useless and if possible a better specimen should be secured, otherwise it must be plated on blood agar and an attempt made to pick typical colonies for the further tests.

If a proper specimen has been submitted a small, firm portion of the sputum is selected and washed through four to six changes of sterile salt solution, using a sterile glass syringe without the needle for transferring the selected material.

The washed sputum is then transferred to a sterile mortar and ground, adding about 5 cubic centimeters of broth during grinding. A mouse is then inoculated intraperitoneally, using .5 to 1 cubic centimeters of this material. On the following morning the mouse, which will probably be dead or very ill, is carefully autopsied and gram and capsule stains made of the peritoneal exudate and of the heart's blood; streakings of these materials are also made on blood agar plates, and cultures are made from the heart's blood in broth, litmus inulin and on a blood agar slant. If the smears show pure or nearly pure growth the peritoneal cavity is carefully washed out with broth, using a pipette with a rubber bulb and putting the washings into a centrifuge tube.

The washings are now centrifugalized at low speed for a few minutes in order to throw out the coarser particles and the suspension is transferred to a second tube, discarding the sediment; enough sterile salt solution is added to about half fill the tube and it is again centrifugalized at higher speed for ten to twenty minutes. The supernatant fluid is now poured off and a suspension of the sediment made in sterile salt solution.

This suspension is now added in amounts of .2 cubic centimeters to equal amounts of the immune sera in small test tubes and reacts to its specific serum by agglutination and precipitation. The tubes are kept in a water bath at 37 degrees centigrade for two hours.

A control test is made with normal serum and inoculations are also made in bile which dissolves pneumococci.

If agglutination is prompt and marked in one type serum tube only and the bile clears, the diagnosis may be given at once. If no agglutination occurs, thus ruling out Types 1, 2 and 3, but the bile clears, a tentative report of Type 4 organisms may be given, but this must be confirmed by cultural tests which are not ready until the following day.

In fact all the findings should be confirmed by careful work with the cultures and suspensions made from them.

Through the courtesy of Doctor Wadsworth of the New York State Laboratories the laboratory of the Boston Health Department has been furnished with a small amount of specific sera of Types 1, 2 and 3 for diagnostic purposes only, and if time permits it is the intention to do some experimental work along this line.

Physicians who wish to assist in such experimental work by furnishing specimens of sputa for diagnosis may communicate with the laboratory and if possible their coöperation will be accepted.

REPORT OF THE HEALTH UNIT FOR THE MONTH OF DECEMBER, 1916.

Health Department.

Visits made by medical inspector:

Contagious	31
Tuberculosis	3
Ophthalmia	13
Miscellaneous	9
Total	56

Cases visited by nurses:

Medical	141
Babies	487
Total	628

Defective sanitary conditions found in tenement houses,	3
Calls by district physician from Boston Dispensary	109

Instructive District Nursing Association.

Visits made by nurses	511

Baby Hygiene Association.

Total number of babies cared for	154
New babies admitted	15
Babies readmitted	1
Conferences held	5
Total conference attendance	237
Home visits by nurses	465

Associated and Hebrew Federated Charities.

Cases investigated and assisted	3

Consumptives' Hospital Department.

Calls by nurses in district	506

SUMMARY OF VITAL STATISTICS.

There were 908 deaths reported in the four weeks ending December 30, against 1,139 in the corresponding period last year, a death rate of 15.57 against 19.84.

Reported deaths of nonresidents numbered 138 against 128 last year.

Of deaths from reportable diseases the principal decrease was:

Whooping cough	9
Diphtheria	2
Measles	4

and the principal increase was:

Anterior poliomyelitis	4
Tuberculosis (all forms)	20

Other important differences were as follows:

Decreases:	
Heart disease and nephritis	91
Pneumonia	56
Diarrhea and enteritis (under 2 years)	22
Accidental and violent	19
Premature birth	15
Bronchitis	9
Increases:	
Accidental and violent	54
Other causes	54
Pneumonia	20
Cancer	5

There were 63 less deaths under 1 year, 102 less under 5 years, and 98 less under 60 years.

MORTALITY FOR THE FOUR WEEKS AND SAME PERIOD IN 1915.

	1915.	1916.
Total deaths	908	1,139
Nonresidents	138	128
Rate	15.57	19.84
Corrected rate (nonresidents deducted)	13.20	17.61
Deaths under 1 year	124	187
Deaths under 5 years	174	276
Deaths over 60 years	277	375

CAUSES OF DEATH.

	1915.	1916.
Anterior poliomyelitis	—	4
Cerebrospinal meningitis	3	2
Diphtheria	16	14
Measles	4	—
Scarlet fever	3	3
Tetanus	—	1
Tuberculosis (all forms)	78	98
Typhoid fever	—	3
Whooping cough	10	1
Influenza	5	3
Septic sore throat	1	—
Accidental and violent	84	65
Heart disease, endocarditis, pericarditis and nephritis	273	182
Bronchitis	11	2
Cancer	52	53
Diarrhea and enteritis (under 2 years)	29	7
Diarrhea and enteritis (2 years and over)	4	4
Erysipelas	9	2
Meningitis and encephalitis	2	2
Old age	4	1

	1915.	1916.
Pneumonia	201	145
Premature birth	38	23
Puerperal diseases	15	13
Rheumatism	1	1
Other causes	296	279

The following is a Summary of the Work Done by the Different Divisions in the Department for the Four Weeks Ending December 30, 1916.

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES.

	Total Cases.		Total Deaths.		Nonresidents.			
					Cases.		Deaths.	
	1916.	1915.	1916.	1915.	1916.	1915.	1916.	1915.
Diphtheria	220	256	14	16	55	43	2	10
Scarlet fever	112	214	3	3	38	41	2	1
Measles	84	197	.....	4	.....	2	1	.....
Typhoid fever	18	11	3	.....	.....	2	.....	.....
Whooping cough	13	224	1	.....	.....	1	.....	.....
Tuberculosis (all forms)	158	206	98	78	.....	17	11	7

CENTRAL DIVISION.

Legal notices authorized	448
Prosecutions authorized	27
Hearings	3
Premises ordered vacated	4
Miscellaneous orders	5
Application Lying-in Hospital approved	1
Forcible removals ordered	6
Stable permits granted	3
Stable permit refused	1
Stable permit revoked	1

Licenses — Permits.

Grease license	1
Vehicles inspected and approved	717
Milk licenses	78
Licenses to peddle fruit and vegetables	7
Manicure — Massage	25
Hen permits	150
Dump permits	3
Numbers assigned	16
License revoked	1
Licenses renewed to remove grease, bones, etc.	70
Undertakers appointed	2
Special draft	1

MEDICAL DIVISION.

Communicable Diseases.

Number of visits by medical inspectors	995
Antitoxin given	29
Deaths investigated	12
Cases brought to Boston for treatment	99
Vaccinations	101
Vaccination certificates	14
Antityphoid vaccine administered	9

Public Health Nursing.

Communicable disease visits	1,363
Number of revisits (infants)	6,417
Number of new babies visited	1,344
Total visits by nurses	9,124

BACTERIOLOGICAL LABORATORY.

Examinations for Diagnosis and Release.

Diphtheria	1,224
Tuberculosis	282
Typhoid	80
Syphilis	321
Gonorrhea	306
Other examinations *	183
Bacteriological milk examinations	575

FOOD INSPECTION.

Live Stock Inspected at Brighton Abattoir.

Cattle inspected	907
Calves inspected	1,453
Sheep inspected	3
Swine inspected	6,366
Animals condemned, whole (swine)	52
Parts condemned	494

MILK INSPECTION.

(Examinations as to Statute Requirements.)

Samples examined:	
Chemical examinations of milk	855
Bacteriological examinations of milk	577
Chemical examinations of vinegar	87
Chemical examinations of butter and cheese	167
Chemical examinations of ice cream	20
Number of court cases	36
Fines	$586

* Examination of rats, 93; Genito-Urinary Tuberculosis, 11; Malaria, 41; Ophthalmia, 36; K. L. vir. 2.

Inspection of Provisions — Articles Condemned.

Meats and Fish:		Miscellaneous:	
Chicken	36½ pounds	Canned peas	288 cans
Turkey	49 pounds	Canned corn	24 cans
Beef	5 pounds	Canned apples	48 cans
Duck	3½ pounds	Canned tomatoes	307 cans
Lamb	12½ pounds	Eggs	289 dozen
Goose	13 pounds	Eggs (liquid)	56 quarts
Pork	2 pounds	Crab meat	23 cans
Liver	1½ pounds	Grapes	50 pounds
Smelts	8 pounds	Cranberries	210 quarts
Finnan haddie	12 pounds	Stores examined	396
Fish	3,002 pounds	Prosecutions	6
Oysters	4 gallons	Fines	$236

SANITARY INSPECTION.

New reports	3,081
New tenement house reports	52
Legal notices recommended	448
Reinspections	4,225
Nuisances reported	3,885
Complaints investigated	858
Number of court cases	6
Fines	$35

MORTALITY FOR 52 WEEKS OF 1916.

	1915.	1916.
Total deaths	12,021	12,724
Nonresident deaths	1,640	1,795
Deaths under 1 year of age	2,045	2,055
Pneumonia	1,496	1,629
Cancer	855	866
Heart disease	1,604	1,674
Diarrhea and enteritis under 2 years	453	356

DEATHS AND CASES OF COMMUNICABLE DISEASES REPORTED.

(52 Weeks.)

	Deaths.			Cases.		
	1916.	1915.	1916. Non-residents.	1915.	1916.	1916. Non-residents.
Diphtheria	185	218	52	2,981	2,409	458
Scarlet fever	39	79	19	2,586	1,764	418
Measles	107	40	6	5,206	5,322	30
Typhoid fever	26	40	6	398	185	20
Whooping cough	75	111	6	2,240	1,393	17
Tuberculosis	1,111	1,034	99	2,775	2,595	239

MONTHLY METEOROLOGICAL SUMMARY, DECEMBER.

ATMOSPHERIC PRESSURE.

(Reduced to sea level; inches and hundredths.)

Mean, 29.89; highest, 30.47; date, 27; lowest, 28.85; date, 22.

TEMPERATURE.

Highest, 59; date, 5; lowest, 10; date, 31; greatest daily range, 20; date, 27; least daily range, 5; date, 21; normal for month, 31.6°.

PRECIPITATION.

Total this month, 3.00; snowfall, 9.5; greatest precipitation in 24 hours, 0.83; date, 22; snow on the ground at end of month, *T; normal for this month, 4.10.

WIND.

Prevailing direction, west; total movement, 9,447 miles; average hourly velocity, 12.7; maximum velocity (for five minutes), 47 miles per hour, from west, on 23d.

WEATHER.

Number of days clear, 14; partly cloudy, 7; cloudy, 10; on which .01 inch or more of precipitation occurred, 12.

MISCELLANEOUS PHENOMENA (Dates of).

Auroras, 0; halos: solar, 24; lunar, 3, 4, 5, 13, 31; hail, 0; sleet, 15; fog, 22; thunderstorms, 0; frost: light, 0; heavy, 0; killing, 0.

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*T indicates traces of precipitation.

> There is nothing in all the world so important as little children; nothing so interesting. If ever you wish to go in for philanthropy, if ever you wish to be of any use in the world, do something for little children. If ever you yearn to be truly wise, study children. We can dress the sore, bandage the wound, imprison the criminal, heal the sick and bury the dead, but there is always a chance that we can save the child. If the great army of philanthropists ever exterminate sin and pestilence, ever work out the race's salvation, it will be because a little child has led them.
>
> —*David Starr Jordan.*

Readers of the Bulletin who have no further use of the back numbers (from January to July) will do a service by mailing them to this office. We have had many requests for these issues but the edition for these months has long since been exhausted.

HEALTH DEPARTMENT
MEDICAL DIVISION

FREE VACCINATION.

The Health Department has established a Vaccination Station at 17 Blossom Street, near Cambridge Street, West End, where all persons residing in Boston may obtain vaccination free of charge every day between the hours of nine and twelve in the forenoon, and two to five in the afternoon, Sundays and Holidays excepted, and on Saturdays between nine and twelve in the forenoon.

ALLIED PRINTING TRADES UNION LABEL COUNCIL BOSTON, MASS. 21

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